Royal Ministry for Foreign Affairs

The Biography of a People

Past and Future Population Changes in Sweden

Conditions and Consequences

A Contribution to the
United Nations
World Population Conference

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Foreword

Following the Economic and Social Council's Resolution 1672 (LII) the Swedish government in March 1972 appointed a National Preparatory Committee for the World Population Conference.

With a view to promoting the dialogue on a few selected topics deemed to merit particular attention within the vast Conference materia, the Committee initiated a small research programme.

The task of synthesizing the Swedish population development in a comprehensive way was entrusted to Professor Torsten Hägerstrand of Lund University. One particular reason for taking this initiative was the fact that census data of the Swedish population are available from as far back as the middle of eighteenth century, thus covering the entire industrialization period and the demographic transition.

It is hoped that this study as it also ventures to discuss some alternative patterns of future developments in the Swedish population may contribute to the discussion of the concept of population policy and its rôle in the shaping of a modern welfare society.

The Swedish Preparatory Committee presents herewith the report to the United Nations World Population Conference.

Inga Thorsson/Carl Wahren, Lars Jonsson

Preface

When in early 1973 the National Preparatory Committee asked us to make a broad review of Swedish population development, past and future, in a political perspective we were given a free hand to deal with the task in a way that we found appropriate.

Clearly, not much new research can be carried out during the time-span of slightly more than a year. Therefore, we have concentrated on trying to collect, organize and interpret the knowledge and thinking already available in print or on the desks of researchers. In the course of this work we have everywhere met a generous readiness to help. Colleagues in many disciplines have written memoranda for us (see the list at the end of the book), suggestions have been put forward at a series of seminars and answers have been given to innumerable questions asked in private conversations. We are grateful to all involved for a stimulating exercise in inter-disciplinary communication.

The material thus assembled has been utilized by us in a non-rigorous manner. For the way combinations, interpretations and speculations have been made and suggestions put forward we assume all responsibility.

Gothenburg, Lund and Stockholm, May 1974.

Gösta Guteland Economist	*Ingvar Holmberg* Demographer	*Torsten Hägerstrand* Geographer, chairman
Anders Karlqvist Mathematician, secretary	*Bengt Rundblad* Sociologist	

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1 Family and Society – A Way of Thinking

1.1 Introduction

In the following essay we have tried to identify some of the connecting links between the development of a society and of its population. Stress is laid upon how political moves interact with other kinds of processes. The main purpose is to shed some light upon how population policy in a restricted sense is related to other forms of policy.

Our method is to sketch "pictures" of the total demographic, economic and social situation during shorter periods of time when the population development and the development of society are involved in extensive mutual adjustments. The data used refer to Sweden in the past and in the future. Yet, the purpose is not to write a continuous history or to predict the most likely future trend. It is instead to discuss a number of illustrative cases in order to arrive at some approximate idea of how certain crucial factors, present in all societies irrespective of time and place, interact under different circumstances.

A picture of an age can never be drawn in an entirely exhaustive and objective way. A selection of phenomena, relations and points of view have to be made. This selection should preferably be the outcome of predetermined criteria. In this study we have been guided both by certain conceptual considerations and by certain value premises. Before going into the subject matter proper a short presentation of these two groups of assumption is in order.

1.2 Population Policy – the Concept

According to United Nations Multilingual Demographic Dictionary population policy is " . . . measures designed to influence population changes". This brief and general definition permits a number of interpretations. In demographic writings one meets with a rich variety of meanings given to the concept in different contexts. We see no reason for going into these divergent versions. We have simply chosen to understand population policy as a summary name for such measures, undertaken by national or international political agencies, which aim at influencing and changing the *size, composition, geographical distribution* or *mobility* of a population.

The population variables just mentioned all belong to the area which is usually called quantitative population policy. In the political discussion of population problems one often finds an emphasis on aspects which can be called qualitative population policy, that is dealing with health, living conditions of children, the economic situation of parents etc. Obviously such circumstances are closely related to the quantitative situation. Therefore they have to be treated together. However, in this study such qualitative aspects are for the sake of clarity considered to belong under welfare policy.

An important distinction between population policy and all other kinds of policy consists in the *intention* to influence the size, composition etc. of the population. One could of course argue that all policies at the final end have demographic consequences, albeit unconscious and frequently unknown as to their nature. But such statements are easier to make than to verify. Shortcomings in our knowledge in the field of policy effects are found on two levels. First, the connections between political measures and the actual behaviour of

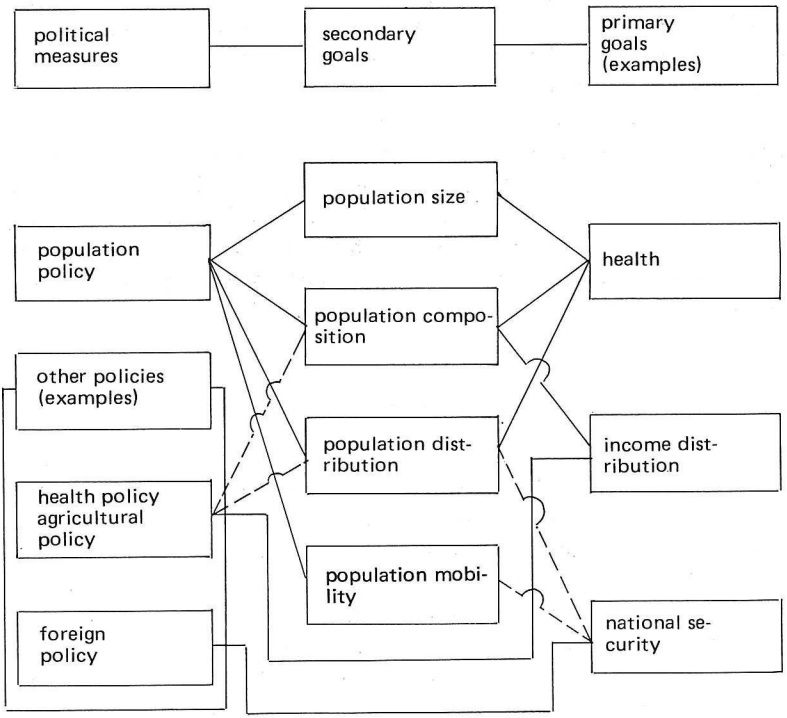


Fig. 1.1 The relations between population policy and welfare goals.

people are far from clear and perhaps sometimes impossible to apprehend. Secondly, the relations between quantitative population indices and different welfare goals are only partially understood. For these reasons we are forced to handle our observations in a non-rigorous way. Our line of thought on these matters can be epitomized according to the scheme above (Figure 1.1).

The diagram is intended to indicate that a discussion of population policy has to be based on an overall view of the social and economic *conditions for* and *consequences of* the population development. We have to repeat that with present knowledge it is hard to make such a broad analysis exhaustive and base it on desirable quantitative estimates. Therefore the explosition must be made in a more qualitative fashion, focusing on matters of principle. The emphasis is laid on the overall perspective. The precision in the treatment of subproblems is relaxed.

1.3 Family and Society Perspectives

When dealing with population development in terms of causes and consequences one finds that the family or its equivalent forms the most essential social unit. Children who are born and individuals who pair off, move and die are the tangible demographic "elementary events". Accumulated over time they produce the abstract progression which we call population development.

"The family, thus seen, is not merely a passive filter through which changes in population are wrought by socio-cultural variables. As the locus where decisions about reproduction are made, it can be viewed more as a force of change than an adaptive institution, as a nexus whose members are not merely spectators but actors. The family *acts* in its effects upon demographic variables, just as changes in these can modify its size, composition, and interaction; likewise, altered socioeconomic opportunities affect stages of child dependency, marriage rates, migration and so on." (Moni Nag).*

This fundamental position of the small groups of individuals who form families presents a rather formidable difficulty when we try to understand population development. Our knowledge of the population derives from data which represent added characteristics and behaviours of many people, normally all inhabitants of a whole country. Such data are indispensable for synoptical statements, in particular such as concern macro-economic, social and environmental *consequences of* a population development, observed or predicted. But as soon as we turn our attention

*UN Symposium on Population and the Family, Honolulu, 1973.

to the *conditions for* population development we are in fact trying to understand how individuals and families solve their private problems as they see them under various local circumstances. The conceptual step between micro and macro scales is not easy to take. We know in fact very little about the interface between individual worries and general actions. And so there is not much of a conceptual base available for judging how demographic "elementary events" relate to such factors as political action at the national level.

In order to have at least some ordering scheme for our observations concerning the relation between micro and macro events we have for this study adopted a tentative line of reasoning which runs as follows.

All actions of man are circumscribed on the one hand by his own capability to act and on the other by the mix of resources and constraints found in the physical and social environment within his reach. Viewed together these two groups of factors define his living conditions. Thus living conditions are partly bound to the individual himself in terms of health, knowledge, imagination, wealth and income and partly dependent on a number of external circumstances. Of particular significance among the latter external factors is the mutual interdependence between individuals, appearing both as co-operation and as competition. A further component of crucial importance is access to a livelihood. Among other fundamental items, health care and education should be mentioned.

Clearly, the person can change his resources over time by his own actions, both in a positive (say education) and a negative (say unhealthy way of life) direction. It also *obviously follows* that what one person chooses to do can change the environment for others around him, for better or for worse.

This way of understanding behaviour will underline the statement by Moni Nag referred to earlier that it is too simplistic to view population development as a pure process of adjustment to given conditions. Family planning or a decision to migrate, for example, should be seen as voluntary actions based upon a perception of one's own resources and of those in the environment as well as a judgement of future consequences of one's actions.

Nevertheless, both the capability of the individual and the content of his environment, are in many cases possible to change by collective (political) steps. Such action may be motivated by a desire to influence the mutual relations between individuals and groups. When discussing policy in the following pages we are trying to make a distinction between measures which are intended to reach the resources of the individual person, say his health, income, knowledge, or awareness and those which

are intended to rearrange or supplement his environment, say in terms of access to work, housing, clean air and water. At least this kind of classification is rather easy to make. The evaluation of the outcome is more difficult. Even if one could estimate the effects of a policy objectively with some precision, this would only take one halfway to a true evaluation. At this stage the value position of the observer becomes critical.

1.4 A Value Position and Its Conceptual Consequences

Population policy turns around the most fundamental of all questions, our existence as human beings. It considers the beginning and the end of life as well as crucial events in between. When quantitative population policy is seen in a historical perspective one finds that it has been carried through in order to reach several different kinds of goals, even those which have been located beyond or moved against the interests of the population concerned. This is a matter of fact which cannot be ignored in an evaluation of the rôle of population policy in the development of a society.

In a forward-looking perspective the values which guide the policies become a key issue. The position in this analysis is that a quantitative population policy is defendable only as far as it furthers general welfare goals. A quantitative population policy is acceptable only when it is directed by qualitative efforts, aimed at benefiting the population in question. Thus demographic goals are interpreted only as secondary goals or as means applied in order to reach primary goals bearing upon the welfare of the population.

To place welfare considerations in a central position implies that one must see the concomitant development of a society and its population in a special light. Attention must be focused on how various circumstances and political measures influence the distribution of living conditions *throughout the entire population.* How to achieve this is in itself a vast area for research. We cannot meet this requirement to any full degree in this study. But we have tried in the pictures of the different ages to observe how two crucial phenomena are distributed. One concerns the *division of activity* between the members of the population. The other concerns the *distribution of political resources.*

The division of activity entails far more than what is normally included in the concept of division of labour. Both the production and consumption of goods and social activity are taken into account. In traditional societies with simple technology and small economic units these three areas are not separately distinguishable. Many of the social

needs, such as care of children and the old, education and training for social responsibility are byproducts of the process of producing goods. In modern societies specialisation has moved the three spheres of activity farther and farther apart and in fact created an unsolved tension between their requirements.

The *division of activity* is of central importance for welfare policy as well as population policy. The coming into being of new individuals is a precondition for activities to be carried on despite the ageing and death of the single individual. The conditions of family life, the care of young and old, the quality of social, political and cultural preoccupations cannot be isolated from how activities as a total pattern become divided between sexes and ages inside and outside the frame of formally organised industry. A very important fact in this connection – which so far has mostly been overlooked – is that the capacity of a given population represents a limited universe for housing activities. This means that when an expansion or contraction takes place in one area consequences arise in other areas, frequently in unexpected ways. If the population subgroup in question has a political voice a mechanism exists for resolving the possible conflict. If this is not the case, the consequences are there nevertheless and should not be neglected.

The last point leads us on to the second phenomenon to be observed, the *distribution of political resources.* The first observation to make here is that in all populations there are groups whose interests have to be taken care of by others. This applies to children, to many old and disabled people and to those who are not yet born but will be dependent on present decisions. Secondly, the great majority of any population tends to belong to groups with very different potentials for pooling their individual worries and bringing them up to the level of general problems. Even if there exists formal equality in terms of voting rights and freedom of speech, the access to the communication channels up and down the political and administrative hierarchy will be very unevenly distributed unless special efforts are constantly made to counteract the "nature" of things.

1.5 Conclusion

When painting our series of pictures of different ages, we select observations and point out relations using the conceptual scheme and value positions just presented as a screening device. We look into the living conditions characteristic of the period, in particular those which have an obvious relation to the four population variables identified in section 1.2. Special emphasis is laid upon the interpretation of coincident

changes in living conditions and population variables. Policy measures, consciously or unconsiciously connected with population development, are sorted out according to their possible action upon the living conditions defined either as individual resources or as environmental structures. Among circumstances which penetrate living conditions of each age, the divison of activities and the distribution of political resources are given special attention.

2 "The Population Number and Natural Strength of the Kingdom of Sweden"*

2.1 The Principal Features of Population Changes

The aim of this chapter is to review broadly the continuous development of the Swedish population since the middle of the 18th century. The reader is advised to study Figure A.1 as the description proceeds. It provides the context within which the later detailed pictures covering shorter specific periods may be read.

As a result of the great foresight shown in the 18th century, we have today an unbroken series of population statistics from 1749 covering every year up to the present day. The unique feature of Swedish population statistics is that they allow the study of the population trend over a very long period embracing the entire demographic transition; and in particular an evaluation of the conceptual model used for decribing the changes in population from an undeveloped country to that of an advanced, industrial country. Thanks to these population statistics, we can now study in depth how such a transition develops.

On the basis of Figure I.1 and with the transition model as our standard, we will now attempt to describe in some detail the various phases in the transition of Sweden from an undeveloped country with high mortality and fertility, slow population growth and an economy entirely dominated by agriculture to a highly industrialized country with low mortality and fertility and again slow population growth. No exact dates can be given for the different stages in this development so the definitions made here are only approximate. With this reservation, the following phases in the development of the Swedish population can be set out:

First Stage: Up to 1810

A characteristic feature of the trend of birth and death rates during this period is the wide variations from year to year around the average levels of 27 per 1,000 population for deaths and 33 per 1,000 for births. Since the absolute figures for births and deaths vary in opposite directions, in some cases the number of deaths exceeds the number of births quite

*This was the title of one of the earliest treatises on the Swedish population, written by E. F. Runeberg in 1764.

considerably. There was little difference between the natural population growth and the actual growth, but it was enough to indicate that some migration was taking place. The net emigration amounted to somewhat more than 1,000 persons anually, chiefly men.

With these quite stable conditions, the age structure of the population varies very little. For the period as a whole, we find 33 % of the population aged under 15 years, 62 % between 15 and 64 and 5 % over 65.

At the family level, these conditions mean an average of eight children per marriage. Of these, perhaps only four or five attained adulthood. The wife usually became a widow between 40 and 50 years of age.

Second Stage: 1810–70

The first phase of the demographic transition now begins. Death rates start to go down. The decline is unevenly distributed by both sex and age. This intial drop devolves mainly on women and children. There is no real improvement among adult males until towards the 1850's. Another result of this irregular drop in the mortality rate is that the relative excess mortality of males rises all the time. A sign of the times is that both birth and death rates now show a much more uniform trend. The wide variations typical for the preceding period have disappeared and in no case during this new era does the number of deaths exceed the number of births. Towards the close of the period, some increase in fertility is to be observed, despite a continual fall in marriage rate and a continuing rise in the average marriage age.

Moreover, there was probably less migration than during the preceding era right up to 1850. In this decade, however, we get one of the first great waves of emigration. Throughout the 1860's, net emigration increases so that, for the first time in 50 years, the population again diminishes for a couple of years. Direct figures make it possible to study the scale of emigration thereafter, but this applies to recorded emigration only. Actual emigration, which we can determine only indirectly, was considerably greater in certain years.

Owing to the great changes in the demographic pattern throughout the period 1810–70, natural population growth increases, reaching well over 1 % annually towards the end. The proportion of children rises somewhat, but the increase is only a few per cent. This occurs at the expense of the middle age group, since the proportion of persons over 65 years remains more or less constant.

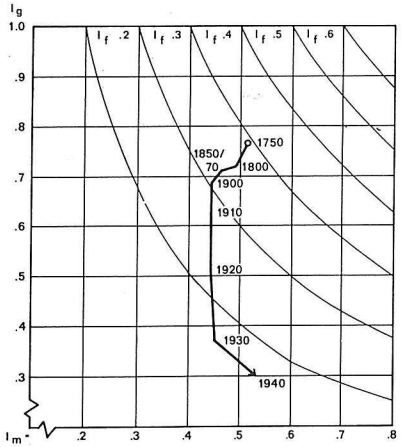
The changed demographic situation means that the number of children per family increases and also that more children survive. Perhaps six out

of eight children born now attain adulthood. The improvement in the death rate means that nearly three-quarters of men who reach 15 years of age live to 50 compared with perhaps barely two-thirds earlier. Throughout this period there is a great increase in the agricultural population, in particular among the non land-owning groups. A substantial problem of over-population undoubtedly existed in the rural areas after the mid-19th century.

Third Stage: 1870–1930

The chief reason for regarding this period as a special phase in the transition is that one can discern, from 1870 onwards, the first signs of a fall in the number of births. On the other hand, it is still an open question as to when fertility begins to decline if fertility is defined as the number of children born in wedlock. From the beginning of this

Sweden 1750–1940



France (F), England (GB), Norway (N) and Eire (EIR) 1870–1900–1930–1960

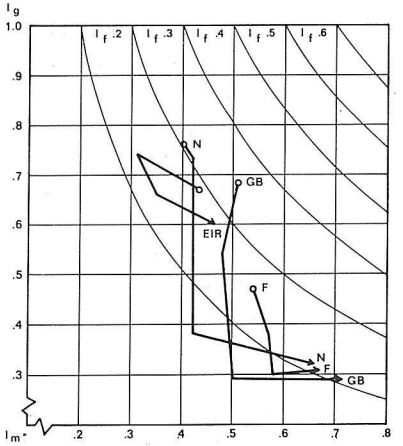


Fig. 2.1 Fertility indexes for same selected countries.

Explanation of symbols

I_f . . . . $\Sigma f_i w_i / \Sigma F_i w_i$ the index of overall fertility

I_g . . . . $\Sigma g_i m_i / \Sigma F_i m_i$ the index of the fertility of married women

I_m . . . . $\Sigma m_i / \Sigma w_i$ the index of proportion married

where f_i . . . births per woman in i^{th} age interval

g_i . . . births per married woman in i^{th} age intervall

w_i . . . number of women in i^{th} age interval

m_i . . . number of married women in i^{th} age interval

F_i . . . births per woman in i^{th} age interval in the standard population (married Hutterites, 1921–1930)

The following relation between the three indexes approximately holds when illegitimate fertility is disregarded: $I_f = I_g \times I_m$

period there is clearly a continually falling trend in the birth rate. This becomes more distinct towards the end of the period. Another way of describing the combined development of fertility and marriage rate during this transitional phase is displayed in Figure 2.1. In the mid-1930's, the lowest level is reached when the number of births is only 85,000. Since the death rate also shows a similar steadily falling trend, natural population growth during the first part of this period is very high. The drop in the death rate now benefits adult males as well, and the previous very high excess male mortality is greatly reduced.

During this period emigration also continues on a still larger scale. This is another reason for studying the period separately. Emigration can be regarded as part of a whole series of processes set in motion to correct the imbalance caused by the difference between birth and death rates. A further part was emigration to the growing towns and industrial settlements. Between 1850 and 1930 the total loss from rural areas through migration was rather more than 2.2 million, whereas the loss through international emigration during the same period was slightly more than 1.1 million.

Natural increase, exceptionally high over a very long continuous period, is considerably reduced by emigration: generally to about a half but even more in some cases, such as in the 1880's, when emigration is equivalent to nearly two-thirds of the excess of births. Owing to these great upheavals, the age structure gradually acquires a quite new shape but it takes a surprisingly long time for these changes to become apparent. Above all, it is the proportion of the elderly (persons over 65 here) that changes, rising in the course of 100 years from 5 % to around 9 %. Another tendency is the fall in the number of children below 15 years of age, but this change does not become definite until towards the end of the period, when the proportion falls below 30 %. There is also some decline in the intermediate age-groups, but this is quite short-lived and can be observed chiefly around the turn of the century. Here, quite certainly, emigration must be assumed to be the immediate cause.

The greatest changes at individual family level during this period are not of a demographic nature. Certainly, the chances of survival continue to increase, one of the more obvious signs being the drop in infant death rates. But the greatest change is in social relationships: the transformation of the farming community, the break-up of the old type of family and the growth of the new urban community. Towards the end of the period we also have a quite obvious change in family size. There are now families with only one or two children or perhaps none at all, particularly in the more well-to-do social classes. Poverty has become synonymous with many children.

Fourth Stage: 1930–

The beginning of the 1930's should really be included in the preceding period and only the latter part of the decade in the new period. The principal reason for the selection of dividing line is that the first signs of a new trend are already noticeable at the beginning of the 1930's.

It is then that the marriage rate begins to rise again after its protracted decline. This does not affect the birth rate for about another decade, but then we experience a rise reaching a peak in the mid-1940's which has not been surpassed since. A similar trend can be seen in most West European countries. (See Figure A.2). It is only the point in time when the peak in the birth rate occurs that varies. Despite the large fluctuation in the number of births, there is in fact no major change in fertility defined as the number of children per married woman. A similar rise in the number of births can also be observed around the mid-1960's. Another important change in the demographic trend is that the migration pattern changes. From 1930 onwards, immigration exceeds emigration. A rather modest net movement to start with grows at such a rate that total net immigration for the four decades 1930–70 reaches about half a million.

Owing to wide variations in the birth rate the annual population growth varies in a rather unsystematic way throughout this period. When compared with earlier periods, the difference is that the actual increase is now slightly above the natural level in all cases. Another consequence of the varying demographic conditions during this latest transitional phase is that the age structure again changes. The proportion of elderly and middle-aged persons rises, whereas that of children sharply declines. At the end of 1970, the age distribution is the following: children under 15 years, 21 %; persons aged between 15 and 64 years, 65 %; over 65 years, 14 %. In the last few years certain new tendencies are becoming apparent: the decline in the death rate for men over 50 is levelling out somewhat and immigration is falling so that we have a net emigration for the first time in 40 years, and finally a very steep fall in the marriage rate.

Small families are now predominant. Trends also indicate the emergence of new forms of cohabitation. Conventional marriage is no longer the only alternative. The low death rate also reveals that death is becoming rare among the younger age groups and the major causes of death up to 35–40 years of age are accidents or other forms of violent death.

2.2 Regional Distribution

A survey of the population development is not complete without an account of the regional trends. There are large areas in Sweden which are very sparsely populated. These areas were formerly much more extensive. An important change from the 18th century onwards was increased growth in the northern parts of the country. After the mid-1880's, the further growth becomes increasingly concentrated and specific growth zones, which develop faster than the rest of the country, begin to be distinguishable. Behind this trend lies, above all, the growth of urban settlements. It has been estimated that, in the middle of the 18th century, the total urban population was just over 9 % of the entire population. In 1800, when actual figures become available for the first time, it is still less than 10 %. Not until the middle of the 19th century does the proportion exceed 10 % but thereafter growth accelerates rapidly. By the turn of the century the proportion has at least doubled and today about 80 % of the population lives in urban agglomerations. These have tended to cluster in broad groupings, in particular around Stockholm and along the west coast. This has caused a considerable concentration of the population in particular regions. Wide sparsely populated areas now decrease in population number. The natural population increase has shown wide regional variations, but it is chiefly migration within the country that has contributed towards the faster growth in some regions at the expense of others.

Simultaneously with the regional redistribution of the population and urbanisation, a social and occupational transformation has taken place (see Figure 2.2). The agricultural population, which had long predomi-

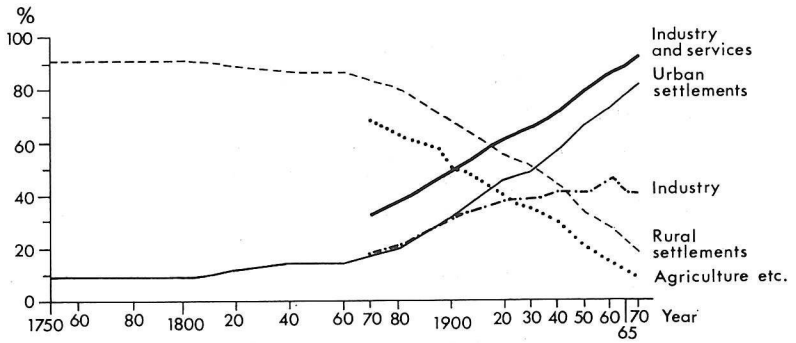


Fig. 2.2 Population by economic activity and urbanization 1750 to 1970. Data on urban population available as from 1800; for previous years estimated figures. Data on the population by economic activity are organised in a comparable way only as from 1870.

nated, reached its maximum of 3.1 million in 1880. A decline then subsequently continued without interruption. The agricultural population now represents at most 10 % of the total population. By 1940, the industrial population had become the biggest group in the country, being at that time 38 % of the total. Today this group also seems to have ceased to grow.

2.3 The Lapps – A Swedish Minority

The population of Sweden is very homogeneous. During the period under review here, the racial and ethnic differences within the population have not been of any major significance. There is one important exception, however, the Lapp population.

The Lapps have been living in Northern Scandinavia for a very long time. They form a minority group which from the outset has been considered as a quite alien element in Swedish society both culturally and demographically.

The first statistical figures from the middle of the 18th century show a population of about 4,000 individuals. Reindeer herding was the main economic activity. The size of the population closely corresponded to the size of the herds that could be maintained. The fluctuations in the early population figures probably reflect changes in the size of the reindeer herds mainly due to pestilence, which possibly forced some Lapps to move away. During the early part of the 19th century there occurs an increasing differentiation of the Lapp people into a reindeer herding and a non-herding group. The relative importance of the former group decreases, from 55 % in 1805 to 45 % in 1835. This decrease is partly due to the Swedish colonization which may have caused Lapps to move or to become settlers themselves.

During the 19th century the total Lapp population is increasing, although their relative share of Sweden's population decreases: from 0.16 % in 1870 to 0.11 % in 1930. Most of the modern statistics are confined to the reindeer herding population which has steadily decreased. The total Lapp population is now difficult to estimate. Many have moved out from the reindeer area and are 'lost' in the majority population.

The Lapp population differs in certain demographic aspects from the Swedish majority population. This is especially noticeable in the present century. Marriage rate is low and the proportion of unmarried men is exceptionally high. Many young women are moving away since the contemporary reindeer-breeding economy does not offer them suitable work. This migration has led to a skewed age distribution and will have

serious consequences for future population development. Mortality was in general higher than among the Swedish population at large, particularly before 1900. This was probably a consequence of the nomadic way of life. Today differences are small. Also the birth rate is similar to that of the majority population. The families, however, are in general larger.

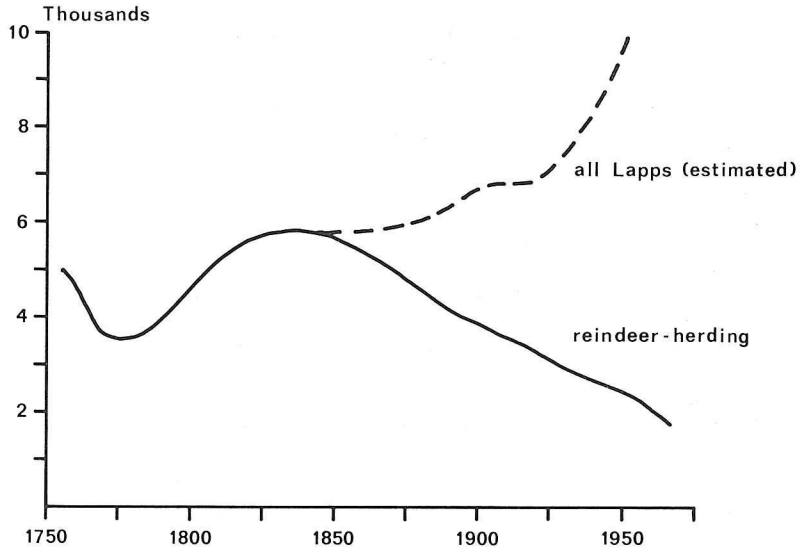


Fig. 2.3 Total Lapp population in Sweden 1750–1970.

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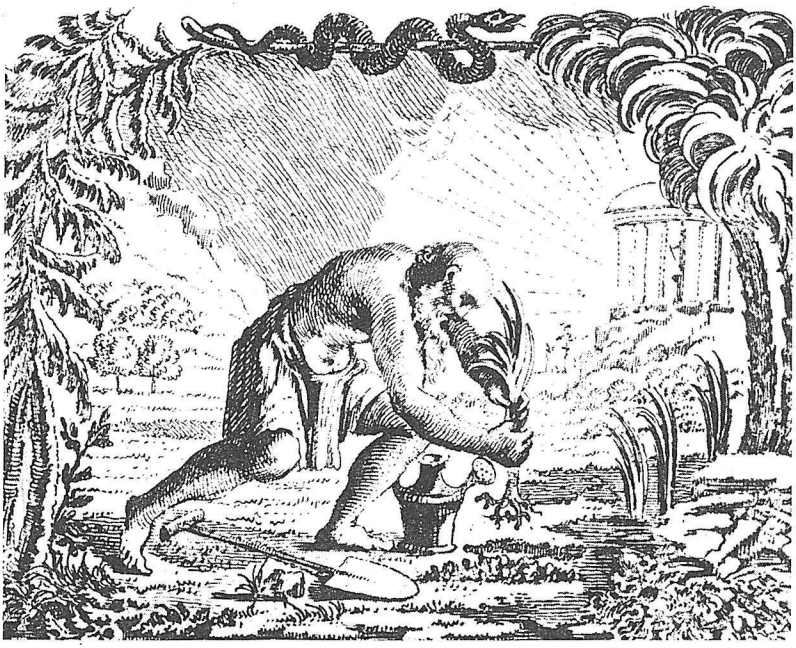

3 Population as a Resource Among Resources

Picture of Age A (middle and end of the 18th century).

The Picture of Age A deals with the pre-industrial society. It is a highly regulated community. The working population is tied to its employers in a personal way, in agriculture as well as in handicraft industries and trades of the towns. Government revenues are dependent directly upon the strength of agriculture. Work-tasks are predetermined and mobility is very limited, both socially and geographically. Social classes and age-groups live in close contact in local communities.

Plans for change and development begin to take shape. Stock is taken systematically of the economic resources of the country. Also the population is regarded as a resource. A system is developed for continuous population statistics. The small size of the population and the high mortality rates cause concern.

A population policy begins to be pursued as part of a general development policy. A rapid increase in population is regarded as a prerequisite for increased agricultural production. This in turn is a requirement for industrialization and for reducing imports.

Marriage is encouraged as a way of raising the birth rate. The means adopted is the formation of new households by easing the restrictions on the division of farmsteads and on the clearing of land for smallholdings. Settlement in Norrland is encouraged and an initial attack on agricultural collectivism is made through the reparcelling of the arable land of villages.

Attempts are made to counteract mortality through health information and the development of an organization of doctors and midwives. Stockpiling of food to combat famine is tried out.

The population increases. It is doubtful whether this is a consequence of the policy pursued. Local solutions to problems concerning land are probably more important than centralized control. There is little technical or medical capacity to influence health conditions. On the whole, people have no defence against infectious diseases. The possibilities of disseminating information are limited owing to poor communications and a low standard of education.

At the end of the period the emergence of an agricultural proletariat is detected.

The Picture of this Age must be introduced in a rather different way from those that follow. Their starting point is the population situation of the time, the main features of which were known. However, before the middle of the 18th century, the commencement of the period in Sweden to be discussed here, the size and structure of the population and its changes were unknown. Immediately after the middle of the century, however, excellent demographic information became available. One of the earliest complete population censuses of modern times had been carried out. This fact alone makes the period one of considerable interest from a population policy standpoint. There is good cause to wonder what induced the idea of systematically gathering population information and also to ask how far the new knowledge altered social outlook and political opinions. We shall, therefore, first outline the factors and events which led to the production of what are usually regarded as the world's earliest population statistics.

3.1 Background to Population Statistics

In 1720 Sweden had been defeated in a long war and now had to take stock of its position. The absolute sovereignty of the monarchy was no more and the Estates of the realm with their committees had taken over the government of the country. Almost all her possessions on the other

side of the Baltic Sea were lost and the economy had to adapt itself to the smaller territory represented by Sweden and Finland.

The country soon entered what could be called its 'take-off' phase. Owing to conflicting party politics and undeveloped ideas of economic relationships, there was little practical development during the 18th century. In one area, however, there was a great deal of innovation. A fundamental new outlook was created in producing and applying information. The feeling was widespread that a fresh start had to be made and there was a firm belief that the country possessed rich unexploited resources. There was free and open discussion on these topics involving informed people all over the country. The activity gradually focused on two lines of action, that is, taking stock of the available resources and evolving methods of exploiting them, both of which were conducted purposefully and systematically. From 1739 onwards, initiative and management were largely in the hands of the Vetenskapsakademien (Academy of Sciences) established at that time. To some extent opposed to the rather cloistered universities dominated by classical scholars, the Academy worked on practical studies and published its transactions in Swedish. The representatives, greatly influenced by the view advocated by Carl von Linné, saw no clear distinction between economics, natural science and technology.

The at times enthusiastic stocktaking and development work was done within the framework of a doctrine of economic policy which was seldom questioned and which came to influence the actual direction of the production of information. The trend-setting groups were guided by the policy which was subsequently named 'mercantilism' by Adam Smith. In this respect the models of other countries, particularly France and Great Britain, were followed in Sweden.

One of the guiding ideas was that a country should build up its wealth and power by maximizing exports and minimizing imports. The size of the favourable trade balance in terms of bullion became the general measure applied. This may be said to have performed a function similar to that of the gross national product today. For that time, this idea was perhaps not quite so absurd as it appeared to posterity. It should be remembered that one of the main aims was to build up a state possessing readily realizable resources which would enable it to hold its own against other countries.

Mercantilism affected domestic policy in a number of ways. Attempts were made to foster an export industry by means of subsidies and protective tariffs. It was also important that agriculture should become sufficiently productive to enable the exporting industries to expand without food imports having to increase at the same time. The volume

and stability of agricultural production also determined, to a great extent, the amount of Crown revenue from taxation. At that time, increased agricultural output chiefly meant increasing the acreages of cultivable land and experimenting with new types of crops. The desired results could be achieved only by a growing population since there was no mechanization, except in certain details such as threshing and techniques for removing boulders from rock strewn fields. The importance of yields per acre was not overlooked; nevertheless, the importance of a good supply of labour constantly features in the debates on the situation. The president of the Academy of Sciences, Jacob Faggot, wrote in his famous publication "Svenska Landtbrukets hinder ock hjelp" (The Obstacles and Aids to Swedish Agriculture) (1746), "Otherwise, we have clear evidence from Great Britain of what a community poor in wealth but rich in population can achieve in agriculture alone. It is known from their writings that at the time that the British were as few in number as we in this country, then they, like us, would have to get food and several other commodities from other countries; but now that they have lined their economy with a population increase, they can sell more grain and other products to their neighbours than they purchased from abroad when their population was small". The argument ran more or less like this everywhere, and the problem of underpopulation was even discussed in school books. A policy of increasing the population was clearly considered to be important and correct among large groups of people.

In this climate of opinion, it became an interesting theoretical problem to calculate the size of population that could be self-supporting. Estimates were based upon ideas as to the appropriate relationship between acreage under cultivation and the population. The figures arrived at varied. Our first university economist, Anders Berch, thought that the kingdom as a whole (Sweden-Finland) should be able to accommodate 26 million inhabitants (1746). J. Faggot, with his intimate knowledge of the agricultural conditions of the time, was more cautious. In his book he stated that it should be possible to establish as many as 450,000 farmsteads excluding the non-cultivable areas of land. This would give a population of about nine million in rural areas alone. For a comparison he referred again to Great Britain which was thought to have seven million inhabitants in a land-area nine times smaller.

Thus the problem of the carrying capacity of the land in relation to domestic demand, a theme very much in focus today, had already arisen by that date. In the self-supporting, technically backward agricultural community there was perhaps a better grasp of the conditions of supply than we have in today's complex international exchange economy.

However, this did not prevent the estimates from being based on an insecure foundation. One of the reasons was that available information was unreliable, not only on the actual amount of physical resources, but also on the starting position of the country in terms of the current population level and its various components. The estimates by Berch and Faggot and several others were in the region of three million inhabitants. In a statement concerning questions of population that he made to the government, Elvius, the mathematician, managed to arrive at a figure, slightly more than two million, which subsequently proved to be almost correct. With regard to the prevailing trend, the predominant view – based partly upon available church records of births and deaths – was that the population was increasing slowly, or perhaps, at times, not at all.

Actually, it was not the aim of the mercantilists that economic development should result in general prosperity within the entire growing population. On the contrary, the emphasis on exports made the supply of cheap labour necessary and this was a further argument in favour of a policy of increasing the population. The labour supply should exceed demand, to some extent at least, in order to keep down wages. A large, hard-working but poor population was regarded as necessary for the wealth of the state itself. Such was the theory. It should be added that actual policy was hardly so openly cynical.

The mercantilist doctrine steered the quest for information chiefly towards the agricultural resources of soil, climate, mineral deposits and population. The suggestions from groups centred on the Academy of Sciences concerning surveys of the motherland, developed into something of a national movement among the educated classes. Linné's reports on his journeys are not unique; descriptions of local topography by officials, priests, estate and factory owners were written and published all over the country. Similar publications were produced in large quantities as theses in the universities. The aim was that the reports should together provide an overall picture of the physical resources of the country.

At a more strictly systematic level, the geographical mapping of the country was improved by geodetic measurements. From having previously been secret documents, in 1735 maps were allowed to be published. Botanical and mineralogical compilations followed and stations for continuous meteorological observations began to be established as part of a European network. It is in this general context that the emergence of Swedish population statistics, and the particular form that they assumed, should be understood. The investigators were chiefly scientists. One can certainly assume that this is the reason why the results were far superior to the attempts made earlier by fiscal

experts and men of the Church.

Towards the middle of the century the need for statistical information on the population became so strong that a parliamentary committee undertook to draw up, in consultation with the Academy of Sciences, a bill for the nation-wide compilation of statistical tables ("tabellverk"). The bill became law in 1748 and the first tables cover the year 1749. They were, however, not compiled on a completely national scale until 1755. The initiators had great confidence in the new institution as part of a long-term development. Summary tables were drawn up for a period of 25 years ahead and the first overall assessment at the end of the 25-year period was planned from the very beginning. This routine organization from the very outset helped to give the project stability. After a few years it was found that the existing government departments had difficulty in handling and utilizing the statistical material, an overwhelming amount in relation to the aids available at that time. In 1756 a special authority was established to compile the statistical tables. In 1775 a second 25-year period was started, organized in essentially the same way as the first.

Certain data on population had been gathered and processed earlier in other European countries, and the existence of some interesting regular patterns had been discovered. However, the data concerned only the number of births and deaths and, in some cases, marriages. Similar records also existed in Sweden, in some cases dating from the early 1600's. The entirely new feature of the statistical tables was that an attempt was now being made to produce *a complete record of the numerical strength and structure of the entire population.* This was to be achieved by starting the statistical work with parish priests who kept records of their parishioners and could be assumed to know them personally. The sex and age distribution of the total population did not cause any great difficulties. The social classification, on the other hand, was a bold attempt which certainly provided valuable immediate insights, but did not become entirely satisfactory for a very long time. Also, the recording of causes of death was doomed to remain fraught with difficulties.

The intentions of the initiators have been pursued in forms which have varied somewhat, but without interruption, up to the present day. It should also be noted that the greater part of the extremely detailed, continuously-recorded source material on which the population statistics are based has been preserved. This enables the basic details of the lives of individuals to be reconstructed. The tables and their accompanying records thus contain a continuous and overall picture of population development over a period of more than two hundred years.

The results of the compilation of statistical tables appear in two forms. We have contemporary analyses – especially those made by the first administrator of the system, Pehr Wargentin, the astronomer. There are also the later analyses carried out up to our own time with the aid of more refined demographic techniques, the majority of which were unknown when the statistical tables were started. Actually, much of the data has still to be processed further. Insofar as population statistics acquired political and administrative significance, the correct starting point is, of course, the contemporary view of what the figures had to say. To include subsequently acquired information is not justified until we come to the task of analysing the real effect that the various policy measures can be considered to have had upon demographic conditions. Thus, now it is only appropriate to describe the impression made by the statistics immediately after the first results were obtained and during the next few decades when the picture gradually became clearer.

3.2 The Initial Results

The importance attached by the authorities to the size of the population as a measure of resources is evidenced by the fact that its details were classified information for several years after the compilation of statistics began. This is perhaps not so surprising, since the small population of Sweden could be regarded as a measure of her military weakness. However, no obstacles were placed in the way of the publication of tables of births, deaths, causes of death and marriages. Owing to the secrecy requirement the first publications analysing the statistical tables were compiled in a way that concealed the overall figures. These figures were, however, used in the calculation of certain rates. Not until the 1760's are the size and structure of the population openly discussed with reference to the overall figures. Because of the way in which the numerical data were handled, the results reached the users along two channels, one being analyses with small tables as examples, published chiefly in the proceedings of the Academy of Sciences, and the other the more extensive tables and recommendations sent direct to a limited number of government representatives.

Despite the restriction imposed regarding the population figures, Wargentin was able to present an authoritative analysis of the fresh statistical material in a number of articles published in the years 1754–55. In the manner of his time, he combined his observations with practical suggestions for action. The most important points were as follows.

Analysis of the age-structure seemed to show that the country had not become any more populous than at the end of the preceding century.

However, some growth was now taking place owing to a birth rate which would result in a doubling of the population of the country within about a hundred years. Wargentin considered this to be far too long as shown in his attempts to find ways to shorten the period. The birth rate varied widely in different parts of the country due, so Wargentin thought, to varying marriage rates. He seems to have imagined that the average number of offspring per marriage was the same everywhere. Marriage rate was something that could be influenced by economic policy, however. For example, the ban that existed on the division of farmsteads formed a barrier to the formation of new families.

More important than raising the marriage rate however, was the survival of the individuals who had already been born. There were two objectives to consider:

A comparison between the number of men and women aged 25–45 years indicated that men were emigrating on a considerable scale. (This conclusion was to be retracted by Wargentin later in a publication of 1780 based upon a longer period.) The aim should be to ensure that this group of people remained within the country.

In addition, infectious diseases took a heavy toll, especially among children. The statistics on causes of death showed that if only smallpox and measles could be controlled, the time for doubling the population could be reduced to about half a century. The fight against disease should thus be a fruitful field on which to concentrate action. It should be ensured that a sufficient number of doctors was available "in all towns and country districts so that not so many young and healthy persons would succumb to sudden illness and be lost through negligence". Inoculation against smallpox should be introduced on the model of inoculation abroad. Priests should be supplied with informative literature giving advice on the diagnosis and treatment of disease. Finally, the number of midwives in the rural districts should be increased, especially in view of the high mortality rate among mothers in childbirth and among infants who were obviously frequently neglected.

Sample data from different parishes seemed to show that the number of births varied from year to year with the supply of food, falling simultaneously with and immediately after crop failures. The obvious remedy for this would be to establish storehouses to hold reserve stocks for use at times of shortage.

Wargentin's assertions in his publications were in very close accord with the points of view emphasized in reports to government and parliament by those who were responsible for the compilation of the

statistical tables. It can therefore be assumed that what has just been described accords essentially with the picture of the Swedish population situation received by interested government representatives. Quite clearly, however, Wargentin considered the secretiveness with certain parts of the statistics to be exaggerated. He appealed for more openness, concluding with the words: "To make a secret of the economic situation ill becomes a wise and enlightened Government such as ours".

The information available to the public concerning the population of Sweden was not increased appreciably, however, until ten years later when the population total was made public.

In 1766 Wargentin published his very carefully calculated mortality tables for different age-groups with the remark that "great and surprising steadiness in mortality is to be observed". He also threw light on the excess mortality in Stockholm. The new secretary of the Statistical Commission ("tabellkommission"), E. F. Runeberg, discussed more economic aspects of the population issue, attempting to analyse the division of activties between the different age-groups. In order to assess the number of persons working in trade and industry, he assumed, for example, that the employment of one adult was necessary for every four children and for every twenty old people. He attempted to estimate the national grain requirement on the basis of assumed consumption at different ages and calculated the additional labour requirement in agriculture to offset grain imports. He also compared the population densities in different provinces, with a view to obtaining a picture of the locations of possible agricultural expansion. Finally, he described the distribution of the population by occupation and estate.

Runeberg appears as a keen advocate of reorganizing arable land holdings into larger parcels, greater freedom in the division of farmsteads, the colonization of common land and a free labour market for agricultural workers, all with the aim of promoting economic development and population growth.

This was again followed by a long break in the discussion of the new population statistics until Wargentin undertook, at the start of the 1780's, to review the first 25 years of existence of the statistical tables. He now had sufficient material to be able to confirm that the misgivings expressed earlier about the emigration of 5–6,000 persons annually were greatly exaggerated. A source-critical analysis of the tables showed that the losses through emigration must have been very small. On the other hand the scale of the changes that had taken place within the country's borders now became apparent. Out in the provinces the population was increasing at a rate which Wargentin found satisfactory. The highest rates of population increase were in certain parts of Finland, principally due to

net internal migration. The lowest rates of increase were in east central Sweden, here due to an outflow of population to nearby Stockholm.

3.3 The Demographic Situation as Seen Today

Research in subsequent years has given an insight into aspects of demographic conditions which were unknown to people living at the time. One name merits special mention in this connection – the statistician Gustav Sundbärg. He analysed and corrected the entire statistical material for the period 1750–1860. These figures are now given official status and recorded in the official statistics. Defects still remain, however, in the subdivision by marital status and marriage rates, among other things.

The total population within Sweden's present borders was slightly more than 1.7 million in 1749. Ten years later a population of a little over 1.9 million was reported, representing an annual average growth of 0.8 % during the decade.

Mortality was at a relatively high level, although it did not reach the highest level observed in developing countries today. The crude death rate was 27 per 1.000 of the mean population. For making comparisons, mortality indicators based upon life tables are more reliable. Such tables could not be constructed until some years into the 19th century so we must therefore be content with approximate figures. The following table can be set up on the basis of these:

Around the year 1750

	Life expectancy at ages shown			Survivors per 100 new-born at ages shown			
	0	5	15	5	15	50	65
Men	34.2	47.4	41.9	64	58	38	23
Women	37.6	50.2	44.7	67	61	42	29

Approximately 80 % of new-born children survived until their first birthday and about two thirds lived to their fifth birthday. About 60 % survived to adulthood (15 years), slightly more than one third to their fiftieth birthday and one quarter to 65 years. If we confine ourselves to mortality between the ages of 15 and 50, the situation seems to be more favourable. We find here that two thirds of the males who reached their 15th birthday survived to 50 years of age. The proportion was rather higher for females – about 70 %. These figures should be regarded with some reservation since they are derived from cross-sectional data rather

than from following the progress of cohorts of the population continuously through time; the true trend could be quite different. However, looking back on the period up to the first few decades of the 19th century, we can now see that the difference between cohort and period mortality is very insignificant. In the later contemporary accounts, comparisons of this kind tend to underestimate the actual reduction in the mortality rates.

Data on marriage rate is almost entirely lacking, only the total number of marriages is known. These data can be used only with great caution for comparisons over substantial periods of time, because it is not known exactly how the breakdown by marital status changed over time. Sundbärg has given an approximate distribution and on this basis the probable average age at marriage can be calculated at between 26 and 27 for women. We also find that 10–11 % of women aged 45–49 were unmarried and this can be taken as an approximate figure for the proportion of women who never married. Of course this figure reflects only the situation as from 25–30 years earlier, assuming that mortality and migration do not differ too much between the different civil statuses. We find a notable degree of consistency in these figures later, indicating that marriage rates remained fairly stable during much of the 18th century. The proportion of married women between the ages 20–24 can likewise be put at 60 %.

Actual data on the ages of women at childbirth before 1775 are lacking. The data that do exist are the results of Sundbärg's calculations. The general marital fertility rate for the first decade is just over 300. For the first five year period, the figure is the highest observed throughout our history of population statistics, that is 319. The figure for the second five-year period does not differ appreciably from the average for the entire period to 1900, that is 293 as against 289.

Owing to the high fertility rate during this decade and probably also in the years immediately preceding it, the age distribution is distinguished by a relatively large proportion of children, whereas the proportion in the intermediate age-groups are fairly low:

Year	Males			Females			Both sexes		
	0–14	15–64	65–	0–14	15–64	65–	0–14	15–64	65–
1750	35.2	59.7	5.1	31.5	61.4	7.1	33.2	60.6	6.2

The relatively small proportion of males aged 15 to 64 can perhaps be explained to some extent by the war casualties of earlier years.

Not until 1800 was any distinction made between towns and rural areas in population statistics. According to later calculations in 1760, the urban population represented a little more than 9 % of the entire population. The degree of urbanisation in Sweden was low in comparison with the Continent. Of the 86 major towns, only 24 had more than 2,000 inhabitants. Stockholm, with 72,000 inhabitants, had 39 % of the entire urban population. It is notable that the city did not grow appreciably during the remainder of the century. Nevertheless, there was a large influx into the capital which, however, was compensated for by the high mortality.

3.4 The General Economic Situation

At the middle of the 18th century the economy of Sweden was dominated by old-fashioned agriculture. In the more densely populated parts of the country, the farmers were organized into villages where each farm had a large number of strips of arable land at its disposal. Meadowland and forest were community owned. The strips were so intermingled that crops and work had to be planned jointly. Hay and herbage for the animals were fetched from the surrounding meadowland and forestland. Individual farmers had little opportunity to introduce changes. In this collectivist, tradition-bound society, the desire for change was probably lacking. Agriculture could not supply all the food that the inhabitants of country needed, and some grain was imported right up to the end of century.

The crop yields varied inexorably with the weather. Crop failures of greater or lesser severity were common and, even in the best agricultural districts, the inhabitants could suffer serious distress when there was a failure. Keeping livestock alive through the winter was a constant problem, particularly when the winter was long and cold which was usual during the period. The domestic grain trade was on a very small scale and it was therefore difficult to equalize food supplies between different parts of the country.

Herring fishing appeared as an important supplementary source of food. Herring consumption was widespread in southern and central Sweden. But even this source of nutrition was subject to large and unpredictable periodic fluctuations resulting in severe local crises.

The mercantilist representatives of the government were inclined to concentrate their efforts on the development of the tiny sector of the economy represented by mining and manufacturing three quarters of which was located in Stockholm, in the hope of keeping down imports. The import of foreign materials was not permitted and

smuggling therefore probably flourished. Trade, on the other hand, was assisted by export incentives. Iron was the principal export, with a temporarily guaranteed market, as well as copper, brass and tar. Thus, externally, Sweden was chiefly a supplier of raw materials. Grain headed the list of imports (not more than 20 kg per year per inhabitant, however), followed by salt, sugar, textiles and tobacco.

More important quantitatively were the domestic crafts, the products of which were distributed by travelling salesmen. They competed successfully with both professional craftsmen and manufacturers and, in terms of labour, were probably the largest economic sector after agriculture. The manufacturers did not direct their production to goods primarily demanded by the mass of the people.

The economy was thus characterized by a predominance of self-sufficiency. Even the inhabitants of the small towns carried on agriculture. Domestic trade and a monetary economy were on the way, however.

The supply of energy was already a practical and a political problem. In both western and southern Sweden, forest resources had been exploited so long that there was a shortage of fuel. In the mining districts large scale mobilization of the agricultural population in the area was necessary for the production of charcoal. The view held at the time was that there was a shortage of timber even in these districts. It is not yet clear how well-founded this view was.

3.5 Social Structure and Work Distribution

The data in the statistical tables enable us to state the main features of the social structure. The distribution of the total population between the groups shown is calculated to have been as follows in 1760:

Nobility, priests, commoners	2.8 %
Servants of the above	2.1
Soldiers and minor officials	9.8
Tradesmen in the towns	6.7
Foundry and mill workers, craftsmen and seamen in the country districts	6.4
Farmers, crofters and other agricultural population	72.2
Total	100.0 %

There was social differentiation within the completely dominant agricultural population, of course, and it became more and more differentiated in the course of the growth of population. The details of this differentiation have not yet been reliably clarified.

The upper classes were not entirely closed to entry from below, but movement between the classes was still insignificant. More important was the growth of groups of officials and businessmen who did not belong to any of the recognized Estates. The social movement within the broad mass of the rural population is largely unknown.

Economic activities were, at all events until towards the middle of the century, strictly governed by doctrinaire principles of division of labour. Each person had to fulfil a particular function in the social machinery. The community offered "defence under the law", i e civil protection, only on those who owned land or were entitled to carry on businesses and professions recognized by the government. Persons fit for work who were not themselves employers or in recognized employment were regarded as vagrants and could be drafted for war service, or, if women, compulsory labour.

A fundamental distinction was drawn between town and country. The authorities fought continuously, with the farmers' disapproval, to get all trade under municipal control. In the towns, the guild system still functioned as the means by which the professions protected themselves against competition.

In the rural areas the division of farmsteads was prohibited and a restrictive policy was imposed regarding the land-clearing for new holdings. The aim was to prevent the reduction of taxable capacity. The system was thus directed towards safeguarding employers and, primarily, the economy of the state.

The above social and economic structures set limits to human relations within the community as a whole. But within these frameworks there were probably great similarities between the groups in certain fundamental respects.

Above all, large households existed everywhere; this was dictated by the barter economy. Different ages and both sexes were mixed together both during work and during other activities. Within the agricultural population, work in the fields and in the craft workshop was a joint affair for men and women. The mistress of the household had an important function in the organization of labour of both the farm and the craft workshop. Widows could run inherited craft enterprises. Men and women migrated periodically to earn extra income in the capital and in the herring fisheries. Women were an important element in the factory labour force.

Children began their training by observing the work of the grown-ups at close quarters and taking part in it. Old people were cared for within the family.

The age structure in all social classes was such that there were many

children and young people but few old people. People rarely lived long enough to enjoy long marriages. Child-bearing was a risky undertaking which had to be carried out with the assistance of neighbours. In these critical cases, class barriers could be broken down and sometimes women of the aristocracy assisted at the deliveries of ordinary serving women.

3.6 Living Conditions and Welfare

The statistical material does not describe the living conditions of individuals directly but it does shed light on them indirectly. This, together with narratives of the time, provides a kind of picture of the personal resources which people possessed.

3.6.1 Health and Life Expectancy

All people, regardless of class, were more or less defenceless against a number of almost endemic infectious diseases. Smallpox and spotted fever killed at least 10,000 persons annually (0.5 % of the population). In some years, particularly when resistance had been weakened by malnutrition due to crop failure, as many as 15,000 died from these diseases alone. Dysentery, measles and whooping-cough took heavy tolls, and it must be assumed that the number of people attacked by these and other less fatal diseases was many times greater.

Besides disease, periods of famine must have undermined resistance. Strange and probably often harmful foodstuffs were eaten. The high daily consumption of spirits probably had a bad effect on health; even infants were consoled with spirits. One must assume that the capacity for work declined early, even among those who survived to a more advanced age.

The state of health in Stockholm differed greatly from that in the rest of the country, judging by the fact that the mortality rate there was almost twice as high as in the rural districts. From 4 to 5 % of the total population died annually. Although the better-off had a rather lower mortality than the mass of the people, infant mortality was fairly high among all classes. Also at this time Stockholm, in contrast to the rest of the country, had a high mortality rate from tuberculosis.

The short life expectancy and the ever-present risk of death must have given people a time perspective of their behaviour which is difficult to imagine today. No details are available about the effects on people's actions but it is conceivable that concern for the economic future of the family necessitated a long-term planning horizon.

3.6.2 Information and Education

At the middle of the 18th century, an infinitely small proportion of the Swedish population had higher education. In the 1751 report on the social classes, the figure entered under the heading of 'clergy' 'university and school staffs' is about 3,500 men, representing about two per 1,000 inhabitants. Most of these were priests in the country's more than 2,000 parishes.

At the beginning of the century there were probably about 80 municipal schools and the same number of schools in the rural areas. These possibly had a total of between five and six thousand pupils, compared with the figure of 40,000 for each cohort of children who survived to 15 years of age. The Church worked hard, however, to establish organized popular education for both children and adults, against some political opposition. It was impressed upon parents that it was their duty to have their children taught to read. The priests checked their compliance with this at the annual parish catechetical meetings. It has not yet been determined how successful the efforts were, but sample studies indicate that the period 1660–1740 was one of increasing general literacy.

The most widely distributed books were hymn-books, catechisms and the Almanack. The aim of bringing about literacy was thus primarily to inculcate the Church's teaching. On the other hand, the Almanack, issued by the Academy of Sciences, contained short articles on secular subjects.

By far the greatest contribution to public awareness took place through the passing-on of information in talks and demonstrations. As a result, the knowledge acquired by the individual bore the stamp of the traditions present in his immediate environment. Also new ideas and methods were transmitted directly from person to person and from district to district. Under these circumstances changes in attitudes and knowledge must have been very slow.

The priests probably played an important rôle in this process as intermediaries between the outside world and the local community, since they themselves were farmers. In the middle of the 18th century they were brought into the educational process and acted in many quarters as practical advisers, both from the pulpit and otherwise. The mere fact that the compilation of statistical tables was possible shows that the priesthood, despite some protests about the burden of work, was a loyal instrument of central governmental and Church activity.

What has just been said applied to most of the population. The quantitatively limited educated classes purposefully attempted to follow, and benefit from, what was taking place outside Sweden in the cultural,

technical and economic spheres. Study trips abroad, in which there was a predilection for Great Britain, were a constant source of information.

3.6.3 Wages and Consumption

It is not possible to form any systematic picture of the income distribution between the different social groups. The monetary economy was just beginning to gain a foothold. Transactions in kind were still predominant.

However, it has been possible to some extent to assess the food intake of the mass of the people. In the better crop years it was probably something over 3,000 kcal on large farms and 2,000 on the smaller farms. The higher figure is an adequate level of nutrition. The composition of the diet appears to have changed considerably since the previous century in that the consumption of animal foodstuffs had greatly declined in favour of vegetable foodstuffs. Much of the meat and fish consumed was dried.

The above figures are averages. In reality there must have been wide variation between groups and especially between crop years. Information from that time shows that the poorer part of the population always had to use substitutes for grain in their bread and there is evidence of large numbers of people travelling around as beggars when entire districts starved.

The diet of dried food and the local famines underline the particular weakness of the barter economy. When there was anything left to save, this had to be done by storage on the spot. Periods of famine between good years indicate that either the people did not manage to organize storage or else they did not have very much surplus to carry over from year to year. Employees paid in kind had even less opportunity to save than employers. In particular, they could not take substantial resources with them when they moved. It is a known fact that the foundries and mills tied their employees closely by means of the credit allowed on goods in the company shop.

3.6.4 Mobility

The daily mobility of people at that time was low. No one yet had any experience of travelling faster than on horseback, and there was very little distinction between the social classes in this respect. Whenever longer journeys had to be made, several days had to be set aside for the trip, whether it was undertaken on foot or by conveyance. The social consequence of the low mobility must have been that only the 'leisured'

classes could maintain personal contacts all over the country; but this necessitated considerable effort for them, too. The majority of people were closely tied to their village and district.

From some districts, regular working journeys over wide areas were made on foot to sell handicrafts, or to concentrated labour markets for seasonal extra earnings.

In the institutionally regulated communities of the 18th century there were also social barriers to geographical mobility. This aspect is discussed in the next section.

3.7 General Problems and Individual Worries

Among the welter of political events, one finds a tension due to the growing misfit between the static organization of privilege and control in the community on the one hand and the dissatisfactions of various population groups on the other. The conflict was expressed in two related ways, one concerning the social advancement and political influence of new groups, and the other concerning the rights of access to agricultural land, the most important resource of the country at that time. The first involved mutual relations between the numerically small upper classes; bourgeois society was beginning to take shape. The other was much more important, however, from the demographic point of view. It concerned the conditions of subsistence of the farming population under the pressures of the population increase that had begun.

Since a considerable proportion of public revenue came from land taxes which were divided up for specific purposes, it was in the interest of the government (and also of the civil servants who received their remuneration directly through the system) that taxable capacity should not diminish. Accordingly, there were repeated prohibitions of the division of farmsteads below a specified limit. For the same reason the legislation was restrictive regarding the establishment of new holdings in the domains of the old villages.

The farmers, looking around for means of livelihood for their grown-up children, viewed the matter differently. There was hardly any alternative to remaining in agriculture somewhere in the vicinity of the home. Other trades were still far too few in number, too far away and, moreover, barred by rules on entry qualifications. In this situation, the economic and social realities ultimately prevailed over the bureaucratic regulations, and farms were split up more or less openly and smallholdings were established. Again and again the authorities had to

adjust their rules to accord more or less with actual conditions in different provinces.

The government took a different view of what was taking place at the limit of cultivation in the far north. Here it desired an influx of settlers so that, among other reasons, it could increase the tax basis in the long-term. However, here too, policy conflicted to some extent with what actually happened. The coastal farmers made long hunting and fishing trips inland, whereas the government preferred that they should either stay at home and look after their farms or else settle down as controllable settlers. Then, when settlement gradually began to get under way, one result was a new conflict of interests, a land resource conflict between the settlers and the nomadic Lapps.

In view of what has been described, it seems to be a contradiction that the political debate should be full of continual complaint about a labour shortage in agriculture. It was not only the bigger landowners who maintained that they found it difficult to recruit the labour that they considered necessary; similar views were put forward by the farmers. The reason was probably quite simply that the technically backward agriculture required a great deal of labour for very short periods and all employers needed the labour at the same time. The conflict was aggravated in good crop years, when the sons of farmers preferred staying at home to employment elsewhere. It was the way of the time not to try to solve the problem with market instruments, but with controls. The 'employment decree' ('tjänstehjonsstadga') prescribed the forms of what must almost be called compulsory labour for the unlanded rural population. The decree stipulated employment with the master for at least one year at a time. The question of allocating labour among employers was settled at the same time by fixing a quota for the number of employees an employer could have. For several decades farmers were even forbidden to keep more grown-up children at home than the quota fixed for the size of the farm.

It is fairly clear that the marriage rate and the consequent growth of population was affected by the degree of compliance with regulations on land possession and compulsory labour away from home. The actual effect of the system in quantitative terms is not, however, known.

There were similar tendencies in the urban trades. Journeymen had difficulty in obtaining master posts, the number of which was limited. The law certainly allowed free mastership, but practice remained restrictive and many journeymen had to reckon on remaining in a subordinate position all their lives.

3.8 Aims and Instruments of Population Policy

Political measures which have effects upon the population situation can be put under the heading either of population policy or of some other kind of policy. Their classification depends not so much upon the substance of the measures as on their objective. During the middle and latter part of the 18th century, the idea that an increase in population was necessary was so dominant that it permeated much of the action by the authorities in the economic and social spheres. One is therefore entitled to maintain that a population policy was pursued over a broad front. The mere fact that it was possible to employ thousands of civil servants on gathering population data year after year indicates widespread interest in the question of the size, structure, growth and distribution of the population.

Two different scales of values can be distinguished in what was discussed and decided. One is a narrow, humanitarian scale and the other a broad, economic scale. The object of the former was to improve the conditions of life, and its spokesmen were, to a striking degree, aristocrats. The spokesmen for the other approach classified population, less considerately, under economic resources. They included ambitious officials, landowners and industrialists. Those among the latter who took a long-term view wanted to fill the country with a labour force which could exploit fully the natural resources of the country while the less far-sighted, down-to-earth men, allowed themselves to be guided by the labour market situation and other pressing problems. Landed farmers had conflicting loyalties. Like other employers they needed employees but, at the same time, they were the fathers of many of the young people who found it hard to find permanent livelihoods within the existing restrictive limits.

One particular question is what rôle the newly gained knowledge of the country's population situation, essentially correct but in error about emigration, played. This is difficult to determine exactly. It is clear, however, that the more fantastic speculations on the question of population disappeared from the economic and political literature. Instead, one finds repeated references to the statistics in the reasons given for recommendations and measures. Quite clearly, a quiet change had taken place in a number of fundamental ideas that affected the appraisal and handling of problems. One also finds that the recommendations appended by Wargentin and others to their analyses were adopted by the authorities. It is obvious, however, that the political realities were always a blend of theoretically based arguments and subsequent rationalizations of necessities.

3.8.1 Holdings and Labour Market

An early measure intended to facilitate tenure of agricultural land was decided as early as in 1747, that is at the same time as the idea of the compilation of statistical tables began to take shape. The right to the *division of farmsteads* was widely granted. The fact that this liberalization was significant not only for agricultural policy, but for population policy as well, is evident from the regulation that farmers on newly-established farms had to marry. At the same time the right was restored to the farmers to keep their grown-up children at home, irrespective of the employment quota. Moreover, the initiators of the new policy thought that the restrictions previously in force were a major cause of emigration. The erroneous notion that emigration took place on a large scale was supported for a few decades by the miscalculations in the population statistics.

Measures closely related to liberalization were carried out in 1762 when the farmers became entitled to grant land for smallholdings but a pre-condition was, again, that the settler should get married. This opened the flood gates to the establishment of worker-households outside the household community of the farm, and a new social class of crofters and wage earners began to form.

The above reforms should be regarded to a certain extent as part of an adjustment to an existing social reality. The situation is different, however, with regard to the remaining innovation, the reform for the reorganization of the arable land of land holdings into larger parcels ('storskiftesreformen') in 1757. The aim here was to bring about a profound structural change; the existing agrarian collectivist system was to be broken down and replaced by scope for individual undertakings. The ideal aimed at was to combine the scattered strips of each farm into a single unit, but such a radical change was not to be achieved for a long time. The principal advocate of the reform, J. Faggot, realized that only agriculture could supply a growing population and also that land reclamation and increased productivity necessitated a reduction of collective ownership and joint operation. The reform was not, however, a piece of coercive legislation applicable to all. In each individual case the initiative had to be taken by the village part-owners for the reorganization to take place.

3.8.2 Regional Development

Settlement in Norrland was encouraged by means of a provision of 1749 in the Lapland Order ('Lappmarksreglementet') om exemption from

military service. This added to the earlier practice of allowing 15 years' exemption from taxation for settlers. This probably made settlement much more attractive than before. Under a later provision, settlers were also to be provided with seed.

3.8.3 Health and Medical Services

Quite obviously the particulars of mortality and causes of death by age-groups in the statistical tables pointed out problems which would be worthwhile tackling in a way favourable to population growth. In the sphere of medical care, humanitarian views were also brought to bear very strongly. A number of measures concerning reform and development of medical and associated services were taken, inspired by the new population tables.

At the middle of the 18th century, the medical services were extremely poor. There were only about forty hospitals in the whole country and Serafimerlasarettet, the national hospital founded in 1752 (which was also a training hospital), had only eight beds. The medical profession was divided into two separate guilds, physicians and barber-surgeons, who together formed a small group of about 100–200 persons, the majority of whom were self-employed. The government maintained county medical officers on low pay with the county administrations. Their task was to take charge of the hospitals and supervise midwives and asylums.

The results of the population statistics caused discussion of the future rôle of the county medical officers and certain aspirations concerned with social medicine became apparent. The directive of 1766 laid down that county medical officers were to inspect their areas twice a year and advise the inhabitants on health care. (The regulation was rescinded after a decade for cost reasons!)

Likewise, great interest was shown in organizing maternity care. The central medical authority, Collegium Medicum, had for a long time been trying to develop a midwifery service. Finally, in 1757 it was decreed that every parish and municipality should have qualified midwives in numbers proportional to the size of the district, trained in Stockholm at the expense of the local authority concerned. Outside the capital, the service spread sluggishly, however, and in 1777 the regulations were strengthened to give qualified midwives the sole right to carry out deliveries, with a fine as the penalty for contravention. Already in the following year the Fourth Estate, representing the landowning farmers, expressed dissatisfaction with this obligation, because it meant that rural

housewives would not be able to get assistance. The ruling had to be rescinded in 1780.

Measures to prevent illness were also taken at a semi-official level. In the 1750's a leading physician, Nils Rosén, began to publish brief articles on children's diseases and on combating them in the Almanack. The material was compiled in the form of a manual in 1764. The work was also translated into five languages and came to be an international standard work of reference for the next hundred years. Rosén also undertook research on inoculation against smallpox.

A similar contribution was made by his colleague, Abraham Bäck, who wrote a text-book which, in 1777, was supplied to all the churches in the country at public expense. It was intended that the priests should be able to give advice and also spread knowledge of medical care in their sermons. A secondary aim was to enable the priests to improve their classification of causes of death for the statistical tables.

3.8.4 Famine Management and Social Welfare

From the very beginning of the century the authorities had tried to establish an emergency service for the relief of districts threatened with famine. The county administrations were obliged to submit reports on crop prospects and yields. Right up to the 1750's military stores were chiefly used in emergencies. It then became possible to get quite a large number of parishes to establish local grain stores in which part of the harvest was to be stored in years of surplus. They came to function as a kind of primitive savings bank. However, there does not seem to have been sufficient co-operation in the rural areas for the establishment of an efficient system, and the arrangement was gradually abandoned during the following century. The propaganda for potato growing which began to be made in the 1750's should be considered in this context. The potato was regarded as an emergency food at that time.

Poor relief, the position of which had hitherto been unclear, became obligatory for every parish in 1763. One consequence was that the recipients of relief were prevented from moving between parishes.

3.9 Appraisal of Aims and Resources

On the surface, 18th century population policy was a success. The population increased from 1.7 million in 1750 to 2.3 million in 1800. This does not, however, answer the question of the actual relationship of the policy pursued to what happened among the population. In itself the

observation does not necessarily tell us any more than that the measures taken were not so misdirected that they counteracted their aim. The really interesting answer must lie in a study in depth of the extent to which a correspondence existed between problems as understood by families and by society and the extent to which general solutions came to have significance for individual action. Unfortunately, we are poorly equipped with knowledge about this particular problem. The discussion must therefore be confined to very general observations.

A description was given earlier of the kind of individual difficulties that seem to have afflicted large groups of the population. There are, of course, others which can no longer be reconstructed or can be discovered only after much more exhaustive studies. More important than a complete survey is, however, the question of what conditions existed for bringing the difficulties to bear politically. It is a question of determining how the channels of information functioned and what form the distribution of political resources had.

Not more than half of the population were enfranchised. In addition the members of parliament had widely varying numbers of people to represent. In round figures, each nobleman had only 10–30 people behind him, each priest 290, each burgher 1,000–1,300 and each farmer 6,000 (of whom not all had voting rights). Thus tremendous differences existed in the potentials of bringing problems up for national consideration. In addition, each Estate had an equal voice in the resolutions of parliament, and a resolution adopted by three Estates constituted a parliamentary resolution. Now, these disproportions do not necessarily mean that there was ignorance of conditions in the rural areas. On the contrary, the situation was such that practically everybody, including burghers, was connected with agriculture. It is clear, however, that views and decisions must have been very biased.

During the preceding century, the administration had already become well established around a number of central government departments as well as provincial governors and judges. The reports submitted by governors were an important source of information. Alongside the civil officials, the parish clergy performed certain tasks of public administration. Through their work they came closest to the people in their everyday lives and, at the same time, they constituted a separate Estate with the opportunities for exerting influence.

During the period, two new elements were introduced into the system of channels for information and influence: the press and scientific surveys. Among the latter, the statistical tables in particular were very important politically. In any assessment of the practical consequences of the two innovations, it should, however, be remembered that the

information still reached only a limited audience to be found mainly in the capital.

It is clear that the opportunities for obtaining an overall picture at national level were exceptionally good compared with the situation at that time in other countries. The power of the state authorities to inform the population and influence events must for purely technical reasons have been more limited. At the same time, the distribution of power made it inevitable that policy should be particularly influenced by the views of employers and officials.

When evaluating the impact of measures applied to influence population development we follow the conceptual model put forward in Chapter 1 and classify them into those aimed at the individual's personal resources and perceptions on the one hand and those directed towards his environment on the other.

The first class includes health care and the nursing services. Small groups of people gradually became able to get better help than before. But the mortality figures up to the end of the century do not give any indication that the efforts had any appreciable effect upon the overall situation. Aspirations reached far beyond what was realistic under the existing conditions. Doctors and midwives could not be quickly supplied in sufficient numbers, and it is doubtful whether sufficient literacy existed to give much meaning to informative literature. This measure could not bear fruit for a very long time.

There are many indications that the organization of famine relief was not really successful either. The potato was not generally adopted as an emergency food and it was accepted even less as a normal part of the daily diet.

The second class of measures includes the structural changes in agriculture: the right to divide farmsteads, to clear land for smallholdings and the efforts to reorganize the parcellation of arable land in the villages. To a certain extent these reforms were probably a question of necessary concessions in the face of changes which had already taken place, at least in certain localities. But the methods adopted were to have far-reaching social consequences and must also be assumed to have influenced population growth. It has been confirmed, for example, that the settlement of inner Norrland was carried out chiefly by descendants of the first few settlers in the area. This indicates that a policy of encouraging colonization led to the establishment of new households which otherwise might not have come into being. A conclusive study of this question has yet to be made.

Finally, it is a fact that the establishment of new farmholdings affected the geographical distribution of the population both regionally

and on a local level. This, which at the time was a natural solution, would subsequently develop into other problems difficult to handle.

3.10 A Contemporary Apprisal: Malthus on Swedish Policy

The policy of increasing the population pursued during the later part of the century incited a famous critic. Thomas Robert Malthus travelled through Sweden in 1799 in order to get a better empirical basis for the new edition of the theory of population that he had published in the previous year. It was a time of severe famine. Malthus arrived at the conclusion that the population had grown too big in relation to the supply of food. He criticized the policy which ordained that, for the sake of the labour supply during the summer period, land should be reclaimed to support a population growth instead of increasing prosperity. Sweden was typical of the tendencies that Malthus was campaigning against.

Within the country itself, the former optimism of many leading people had changed to pessimism as they witnessed the growth of a rural proletariat.

However, the by-product of the population policy, the statistical tables, and the population records behind them remain invaluable.

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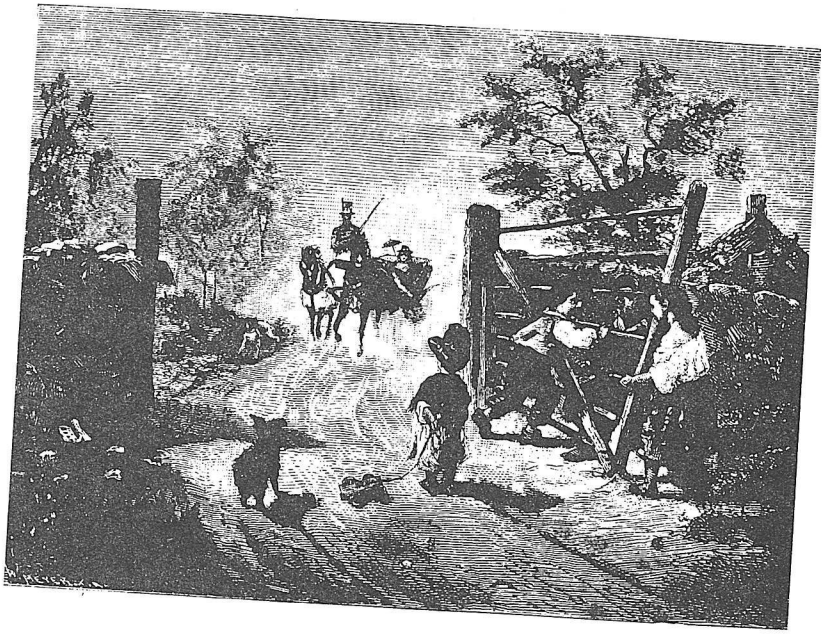


4 A People in Search of a Livelihood

Picture of Age B (1850–

The picture of Age B embraces the transition from a pre-industrial society to an industrial one. Privileges and controls are gradually ousted by economic liberalism. Organizational changes in agriculture, and progress in technology and in transportation together create the necessary conditions for economic growth and industrialization. The organization of labour changes; work tasks crystallize into new occupations and paid work develops on a considerable scale, first in the rural areas, then in industry. Social classes move apart. The organizational changes leave groups of people in poverty, outside working life and without any contact with the political channels. A large-scale problem of poor relief is created. For large sections of the population, however, the conditions of life improve and mortality falls. The population grows rapidly and at an uncontrolled rate. A problem of overpopulation arises in rural areas. Many people can no longer gain access to cultivable land. A people is in search of a livelihood.

Political interest in population issues is non-existent. Economic life is

focal. The organization of work demands mobility on which the remaining restrictions are removed. Railway building and the settlement of Norrland have great impact on the population development and distribution but are not considered from the standpoint of population policy. Emigration to America becomes the safety valve which 'solves' the overpopulation problem. In this case, as for other population questions, the liberal doctrine of the market is relied upon. Vulnerable groups are obliged to solve their problems on their own as best they can.

4.1 The Demographic Situation

One hundred years have passed since the statistical tables began to be compiled. The population has been growing practically all the time, and in 1850 it amounts to 3.48 millions, representing an average annual increase of about 0.7 %. After 1815, the rate of growth is very nearly 1 % annually. The population reaches 4 million in 1863.

It is usually reckoned that mortality began to fall noticeably after 1810, but no exact date can be given. The decline is unevenly distributed for both age and sex. By the beginning of the 1850's, it can be stated with greater certainty that mortality is falling more generally. Owing to differences between the sexes in the fall in mortality, the excess mortality of males was accentuated; the absolute difference can be put at 20 %. Both life expectancy at various ages and survival rates rose considerably after the middle of the 19th century.

Around the year 1850

	Life expectancy at ages shown			Survivors of 100 new-born, at ages shown			
	0	5	15	5	15	50	65
Men	39.4	48.9	42.9	72	66	45	28
Women	43.5	52.1	46.0	76	70	51	35

About 85 % of the new-born survive their first year of life; three-quarters reach the age of 5; while only about one-half reach the age of 50. Infant mortality rates show a uniform, continual improvement.

Marriage rate had probably been falling for a very long time. Up to 1880, however, we must be content with approximate calculations. We find that the average marriage age around the year 1850 is about 28 for women. The proportion of unmarried women in the 45–49 age group is 12 %; by 1860 it has risen to 14 %. With the low marriage

rate and the high average marrying age, only rather more than one-half of women aged between 20 and 44 are married.

In spite of this trend, birth rates have not yet shown any sign of falling. If anything, a slight increase can be observed:

Period	General marital fertility rate
1826–1850	285
1851–1855	290
1856–1860	302
1861–1865	301
1866–1870	278
1871–1875	300
1876–1900	287

Compared with conditions a hundred years earlier, the age structure shows a rather lower proportion of old people and a rather higher proportion in the middle years. On the whole, the proportion of children is unchanged.

Year	Men			Women			Both sexes		
	0–14	15–64	65–	0–14	15–64	65–	0–14	15–64	65–
1850	34.1	62.0	3.9	31.8	62.5	5.7	32.9	62.3	4.8
1860	34.7	60.9	4.4	32.4	61.6	6.0	33.5	61.3	5.2

The growth of the towns begins to accelerate during the first few decades of the 19th century. Nevertheless, the proportion of the population living in urban areas does not exceed 11 % before 1860. Behind this trend lies a gain from migration – the excess of births is very small. Stockholm has excess mortality. In 1860, the urban population stood at about 435,000, of which rather more than 110,000 were in Stockholm. Only five other towns had more than 10,000 inhabitants, the average number of inhabitants in other towns being about 2,500.

4.2 The General Economic Situation

In the 1850's, Sweden was still an agricultural country. Three-quarters of the population were directly connected with agriculture and ancillary occupations. It was not the same kind of agriculture as that of a century earlier; the activity was undergoing a dramatic change.

The reparcelling of land holdings starting in 1757 was only the first stage in the breakdown of the mediaeval agrarian pattern. Considerable

mixed ownership still remained. Above all, however, the village settlements remained intact and, for the time being, social conditions were relatively unaffected. The revolutionary change came with the enclosure legislation ('enskiftet' of 1803 – subsequently amended in the 'lagaskiftet' of 1827). Individualism now triumphed over collectivism. Practically all land was taken into private ownership and each farm was integrated within one parcel or a few parcels of land, while the nucleated villages were demolished. Each owner became free to run his enterprise in his own way. In reality, the reform could not be carried through at a single stroke, of course: it took a few decades. Half way through the century, reorganization was at its peak.

The enclosure movement was accompanied by extensive land reclamation. The acreage of cultivated land was enlarged at the expense of what was previously pastureland. Drainage techniques were developed, enabling marshland and heavier clay soils to be put under the plough. New crop rotations were introduced, and the potato became popular, this trend being accelerated by the rises in the price of grain during the Napoleonic Wars and by the discovery that it was a suitable raw material for distilling spirits. As a result of the increase in grain production, the country became self-supporting around 1830 and was able to export oats and barely a decade later. The free trade reform in Great Britain in 1846 gave further impetus to Swedish agriculture.

Thus, viewed from the standpoint of direct results, the mobilization of the land was a success. The growing population could, it seemed, be provided for. In a longer term perspective, however, considerable risks were taken because of the imbalance, which became greater and greater, between the acreage under cultivation and the available supply of manure. This was offset, to some extent, by burning over the land ('brännodling'). The land was still being cultivated with old-fashioned implements, but tools of iron were being used increasingly, and a great deal of human labour. Only on the largest estates were new types of equipment beginning to be tried out. The difference in cultivation methods between estate and farmholding probably increased during this period. The frailty of the basis of supply is shown by the fact that crop failures caused local famine as late as the end of the 1860's. Natural disasters created more serious difficulties at the time than did international economic recessions.

Industry was still insignificant in terms of the numbers employed; but it was important as an exporting sector of the economy. Shipments of iron and timber in the form of semi-manufactured goods continued to predominate. There was no industrial manufacture of consumer goods for domestic use; home handicrafts still retained their hold completely.

Moreover, there were some who hoped that the tendency would continue in this direction so that an increase in the degree of industrialization would be avoided. Domestic crafts had the great organizational advantage of being able to fill idle periods in agricultural work. Industrial manufacture of farm implements was just getting under way, however, while the budding engineering industry concentrated upon equipping the transport sector.

It was in transport and communications, in fact, that the really noteworthy progress, apart from agrarian reform, took place. It had been quite a heavy burden for agriculture to have to provide personnel and draught horses for inland transport. Improvements were highly needed. A period of quite intensive canal building followed to supplement the ramified system of inland lakes and rivers. The canal routes chiefly served the interests of Stockholm. Harbours were built, particularly to facilitate coastal navigation. The beds of Norrland's rivers were cleaned for the floating of timber. The highways were gradually improved to facilitate the transport of heavy goods. Until the railways were built, however, regular passenger transport through the country remained primitive.

The era of modern transportation was introduced with steamships in the 1820's. They came to presage the radical new world subsequently built up by railways and telegraph, starting in the 1850's. These innovations produced, at a stroke, a distinction between central and peripheral localities which the old community had not known and gave the nodal points a lead in development which they have held ever since.

The forests were still the main source of energy. One-quarter of the timber felled was used for making the charcoal needed by the iron industry. No less than one-half was used for domestic heating.

4.3 Social Structure and Work Distribution

During the 19th century, privileges and controls were ousted gradually by economic liberalism. The land reforms, with their strong emphasis on freedom of action for the individual farmer, can be regarded as the first great application of the new ideas. The controls were also lifted gradually from the iron industry so that its leaders would have sufficient freedom of action to be able to survive the technological crisis which resulted from British innovations in iron production after the Napoleonic Wars. It was a matter of meeting competition with new, quality products. In 1846, guild rules were abolished except for some remaining minor restrictions such as the prohibition of country shops within 30 km of a town. Some years later, in 1864, complete freedom of trade was achieved.

Liberalism marked the emergence of a 'middle class' of commoner-landowners, industrialists, merchants, civil servants, scientists and journalists. Its economic and political influence far outstripped its numerical strength. In this respect there was no great difference between the old nobility and the new middle class. A real political influence on the part of the population as a whole was still very far away.

The population of the country had doubled in the hundred years between the mid-1700's and the mid-1800's. Nevertheless, the proportions in the different classes were more or less unchanged. The three upper Estates, including commoners who were men of rank but not members of an Estate, together amounted to only 5 % of the population. The urban population had only increased from 9 to 10 %, while the agricultural population amounted to more than 70 %, as before. The great differences lay within two sub-groups – the commercial and the industrial population which had become more differentiated. It has been calculated on the basis of the data in the statistical tables that the peasant class increased by only 20–25 %. The numbers of smallholders, on the other hand, nearly trebled and people in tied cottages (i.e. day labourers and unlanded pensioners) nearly quadrupled. Farmhands and farmer's sons, had likewise almost quadrupled. The process of proletarisation was greatly accelerated from the 1830's onwards when large groups of young people were beginning to reach working age. Thus, the old social populatization between the upper classes and the peasants was, to some extent, reflected among the ranks of the peasant population itself.

Economic liberalism led to the penetration of commercialism into areas such as the acquisition of land and the employment of hired labour in agriculture and industry. The new system of land sub-division created the conditions for speculation. Wage earning gained ground and, at the same time, the uncertainty of subsistence increased for the individual since no organizations existed to take care of the interests of employees. Poor relief became an increasingly pressing political question. The legislators certainly tried to keep alive the old regulations that bound employees and employers to one another; but they could hardly succeed in suppressing freedom of movement within one economic sector when social thinking in general was pressing towards more and more liberalization.

As a result, the expansion in agriculture primarily benefited landowners. On the larger estates, many of the tenant farmers became paid agricultural workers when the operation of the farms came under management by the manor farm. The growing, unlanded class benefited from the land reform in so far as they had work during the

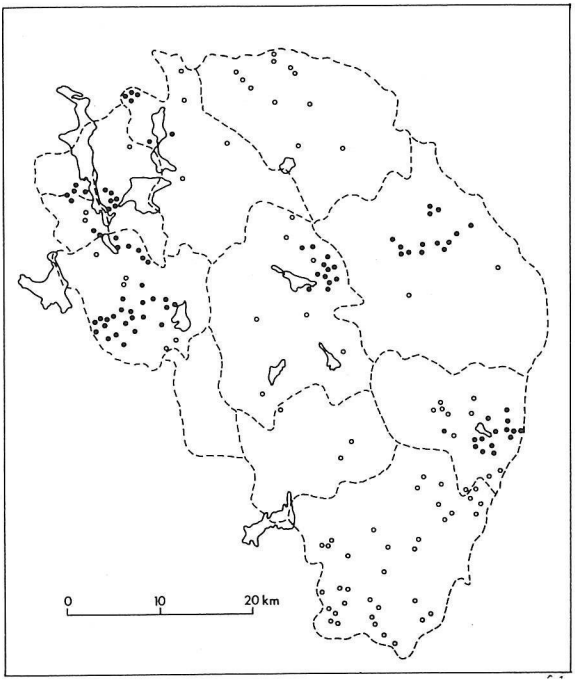
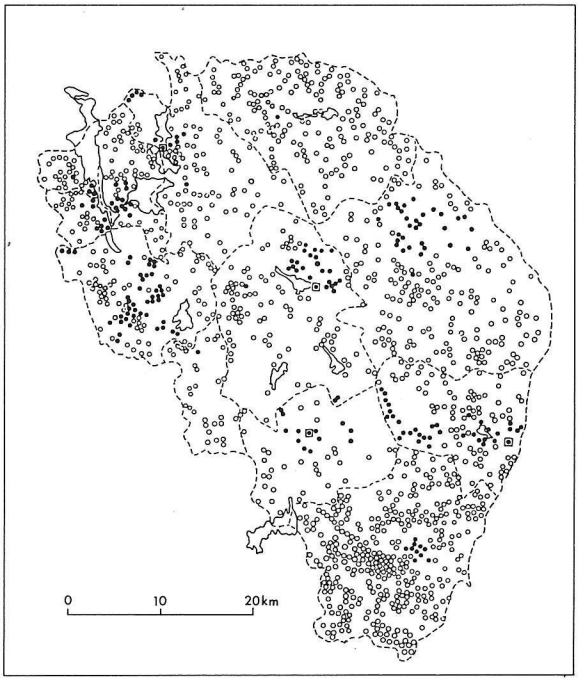


Fig. 4.1 The spread of crofts and workers' cottages between 1745 and 1860 in a part of Småland in Southern Sweden. Black dots indicate holdings under manorial estates. (From Nordström, O., Befolkningsutveckling och arbetskraftsproblem i östra Småland 1800–1955. Lund 1957).

changeover in land reclamation, drainage and building. Also, it probably became easier than before for some to acquire a smallholding for which the rent was paid in money or in kind. The potato now made it possible to feed a family, albeit barely adequately, from a tiny plot. Others had to rest content with a cottage, no land and paid casual work. Yet others, especially on the larger estates were housed in barracks and were paid mainly in kind. Thus, large numbers of people were placed in a hopeless situation as regards future prospects, particularly family breadwinners. The number of married workers actually rose in comparison with the number of unmarried. Unmarried women also had great difficulty in subsisting. As the limit for bringing land under cultivation was approached in district after district, it became gradually impossible for regular agricultural work continually to absorb more and more people.

Figure 4.1 illustrates how the settlement of the unlanded rural population from the middle of the 18th century to the middle of



the 19th century came to fill the land, in some districts at least, to bursting point.

Part-time employment of labour at the height of the seasons, or for particular construction or installation work, increased the scope for itinerant labour. The itinerant workers came from the forest areas which offered little opportunity for local employment. Gradually an occupational specialization was established by people from different areas. The seasonal movements extended to neighbouring countries in west and south. When timber felling and wood processing got under way in Norrland in the middle of the century, the movements turned in that direction and to some extent led to permanent migration.

The disintegration of the nucleated villages altered much of the way of life of the rural areas but, strangely enough, the agricultural reformers ignored the implications. Criticism about promoting such a 'system of isolation' came only from a few quarters representing farmers in parliament. The process probably helped to weaken the influence of the Church. Free-church revivalist movements began to take root, followed gradually by other popular movements.

Agricultural social and economic co-operation developed on a wider scale through new regional and national organizations. These were the first examples of structures which were subsequently to permeate modern society. County 'agricultural societies' ('hushållningssällskap'), were established and helped to spread agricultural innovations. National agricultural conventions were organized on German models. For many decades, however, the above-mentioned organizations remained primarily a forum for the gentlemen farmers; the ordinary peasant farmers did not become involved until the middle of the century.

The lower classes continued for a long time to meet their social needs within the locality. For example, it was common for itinerant workers from the same district to form a team under a foreman who procured work and managed the enterprise. The ordinary group environment thus accompanied them during employment in other areas. Scattered demonstrations, accompanying rises in the prices of foodstuffs foreshadow, however, the wider political movements among workers that were not to appear in ordered forms until industrialization was well under way.

4.4 Living Conditions and Welfare

4.4.1 Health

Around 1850, reports are available from provincial doctors about the state of health throughout the country. They provide insights into dietary habits, clothing and housing conditions. The observations are centred upon skin diseases and disorders of the digestive system. Not unexpectedly, this indicates that sanitary conditions and diet were considered to be the great problem areas. It is pointed out, probably correctly, that the enclosure with its accompanying extensive construction of new buildings had brought a much needed improvement in housing in the rural areas. The more scattered housing probably had some restraining effect upon the transmission of infectious diseases. (At that time, however, there was still no clear understanding of the rôle of micro-organisms.) The way of life was still characterized by excessive consumption of spirits, particularly among the poor. This was interpreted, by some reporters, as a means of deadening the pangs of hunger. The reports give an impression of widespread poverty in many districts.

The latter half of 19th century is a period of breakthrough for medical theory and practice. The step was taken from quite incoherent empiricism to a modern scientific methodology. At the beginning of the period, it was still believed that epidemic diseases were due to

atmospheric conditions. The standard of hygiene was such that even hospitals could be full of vermin. At the end of the period, advanced techniques such as X-rays had been introduced. The ratio of doctors in the country rose from 1 per 7,500 inhabitants in 1850 to 1 per 3,800 inhabitants in 1900. In 1860, 12 % of hospital admissions died, and, in 1900, 5 %. The dread of hospitals began to disappear.

The first great advance in medicine lay in the introduction of vaccination against smallpox at the turn of the century. It became compulsory in 1816. Mortality from smallpox fell very rapidly. Just prior to 1800, 4–5,000 persons died annually from the disease whereas, two decades later, the annual number of deaths from it stabilized at 300–400.

The disease spectrum in Sweden widened with the addition of a new and greatly feared infectious disease. In 1834, cholera appeared for the first time and reappeared almost yearly during the 1850's. Cholera claimed a total of nearly 37,000 victims up to and including the great epidemic of 1873. This represents one-third of the births during one year in the middle of the century.

Whereas cholera reaped its harvest chiefly in the towns, dysentery was the plague of the rural areas, where it threatened especially children and old people. As late as the 1850's, about 2,500 died annually from the disease. Malaria, which had been widespread along the Baltic coast and around the large lakes during the 18th century, began to lose its grip towards the middle of the 19th century.

What was to have the greatest demographic effect in the latter part of the century was the introduction of antiseptics at the end of the 1860's and the bacteriological discoveries during the next few decades. Now people were beginning to understand the importance of hygiene and sanitation, not only in connection with nursing the sick, but in the environment generally. The number of deaths from childbed (puerperal) fever fell and, for the first time, complicated surgical operations could be carried out with good hope of success. The first appendicectomy was performed in Sweden in 1889.

Scientific progress during the Age lay outside political control. The advances were financed from private funds or achieved by the efforts of individual doctors. Organizational development, on the other hand, was in the hands of the public authorities. It was decicided to entrust the establishment and administration of hospitals to the regional authorities in 1862. This resulted in competition between different parts of the country. In 1861, the country had 46 hospitals, and, in 1901, 76. The number of beds increased even faster proportionately. During the same period, a new occupational group appeared, specially trained nurses. The emergency epidemic service was organized, in this case on a local

government basis. Not until 1909 could the old 18th century idea of a compulsory system, with at least one midwife for each municipality, be implemented.

It seems as if private health care was given priority at the expense of the maintenance of public health. At all events, the rural district councils seem, for a long time, to have lacked understanding and shown reluctance with regard to development of public health arrangements. Even in the larger towns water supply and sewage systems were not installed before the 1860's, when they there led to a fall in mortality from intestinal infections.

Despite the advent of the railways, journeys spent visiting the sick and tours of inspection were a troublesome, time-consuming activity and, before the telephone system was introduced, it also took a long time to fetch a doctor or midwife. Thus, there were very obvious technical reasons for the still very low productivity of medical personnel. However, the efforts made during the period clearly culminated in two important results influencing population growth. One was the fall in epidemic mortality and the other a decline in infant mortality. It would, however, be wrong to assert that these advances were considered as being in the context of population policy at that time. They were viewed rather more as an improvement in the conditions of life for their own sake.

4.4.2 Education and the Dissemination of Information

Popular education had gradually progressed through voluntary effort since the latter part of the 18th century. However, in a nation-wide survey made in 1839 it was found that there were no schools in more than half of the 2,300 parishes, and there were great regional differences in educational development. In order to speed up this development, a law was passed in 1842 that every parish had to establish at least one infants' school, with approved teachers, and that school attendance would be compulsory for all children, starting at the age of nine at the latest. By 1850, probably about two-thirds of all children of school age actually attended school. However, the duration of compulsory school attendance was still undetermined. It was not fixed at 6 years until the beginning of the 1880's. School education created new conditions for private communication within all social groups. Letter writing began and the ability to read was a pre-condition for the spread of provincial newspapers. The period is thus characterized by the fact that knowledge of the outside world and its events was beginning to reach the population at large.

In the case of the Lapps the school system was used as an explicit

population policy measure. To begin with the Lapps were regarded as a heathen people who ought to be converted to Christianity. The school was used as an instrument for that purpose. Because of this situation the Lapps were provided with a school system even before the Swedish population. It was, however, a school based on the culture of the majority. It is no exaggeration to say that the policy represented a cultural invasion. This impression is strengthend by the school reform of 1913. In practice the reform led to a completely segregated school system, still based on the majority culture but with a shorter and inferior training than that provided for the Swedish children. Although the system gradually came to be considered as indecent for a modern democratic society it was not until in recent years that the difference was eliminated.

It may be demographically interesting to note that, with education concentrated in the years of childhood, the public authorities would not be able to record any major effect on working life and activity for another couple of decades. Vocational training was resisted for a long time by the farmers who formed the dominant sector of the economy; but their opinion changed during the 1840's and 1850's, and a large number of provincial educational institutions were established for farmers. These became very important for the development of agriculture as a branch of the economy; but they did not do much for the agricultural workers.

Transportation and manufacturing industry, the actual growth sectors, demanded professional knowledge of quite a new kind. The problem was solved at first by entrusting the technical management of the great construction works chiefly to naval officers. Foreign technicians were also called in as advisers. Advanced theoretical training was not introduced until nearly 1850. With regard to management and skilled work, the construction of the Göta Canal from 1810 to 1832 functioned as a great, practical teaching institution. The ten thousand or so employees then gradually dispersed over the country and with them new knowledge which was turned to account everywhere in housebuilding, road works and drainage.

4.4.3 Wages and Consumption

One cannot reconstruct the distribution of income in the community of that time, either in money or in real terms. The barter system was still important in practically all social classes, but especially among manual workers. Even casual work could be paid for in grain. However, the monetary sector was being extended and probably constituted a general standard of valuation between labour and goods. The trends of prices for

casual labour and foodstuffs seem to have followed one another fairly closely; but this does not tell us very much about how employment varied from year to year or district to district.

The daily diet was probably a quite unbalanced, vegetable diet, with dishes made from meal and sour milk as typical fare. The reports of the district doctors underline the positive importance of potatoes for the subsistence of the poorer classes from the beginning of the 19th century onwards. What was conceived at the beginning as a substitute for bread became the basis of the daily diet. Indeed the potato has subsequently been regarded by many as a pre-requisite for the increase in the population.

4.4.4 Mobility

Technically speaking, travel mobility did not change very much for the mass of the people until 1850. It is true that the steamship routes along the coast and on the inland waterways had begun to link the larger towns with regular services. But, as was the case earlier, the means of transport was only one aspect; there were also legal obstacles to free movement. However, the exceptions that the authorities had to make to meet the increasing demand for labour migration gradually necessitated general revision of the official obstacles raised against the geographical mobility of people. Thus, in 1840, the ban on emigration from the country which had been in force since the 18th century, was abolished. The obligation to take out a passport for inland journeys as well as for those abroad continued until 1860, however.

4.5 General Problems and Individual Worries

The change in the agrarian structure first of all benefited those who were already well-off, in the short term at least. It was decreed, for example, that the landowning villagers who had the worst buildings should move out. These were the ones, therefore, who had to rebuild and cultivate new land. The government certainly provided some aid for removal, but it was only a small proportion of the actual costs. Another difficulty was that the capital market was still organized unsatisfactorily for the needs of agriculture.

In the long term, however, moving-out could prove to be a benefit when, as often happened, larger acreages of land and hence greater opportunities for cultivation became available.

The greatest private difficulties were experienced by those without property. The bringing of land under private ownership limited the grazing rights for cattle and small animals the village community had

previously granted to its workers. Those without property then became very dependent upon the private landowners. Cultivation and drainage further restricted the opportunities for augmenting the food supply with hunting and fishing.

The opportunities for work began to be affected adversely by the beginning of mechanization in agriculture. Larger farms acquired threshing machinery as early as in the 1820's. A few decades later mobile threshing machines were introduced, a development which probably reduced an important opportunity for paid work during the winter season.

Another event that affected the unlanded just as badly, particularly in western Sweden, was the sudden decline in herring fishing.

The overriding problem for an increasing number of individuals in the growing population was to acquire means of subsistence and housing. Opportunities outside agriculture were few and the individual's knowledge of them could generally only be acquired through personal acquaintances. Occupational competence, starting capital and mobility were severely limited. Consequently, most people had to solve the problem of subsistence within the confined agrarian environment into which they had been born. There are many indications that land reclamation, the division of farms and the establishment of smallholdings were beginning to reach their limit towards the middle of the century. Within the local environment, there was now a great deal of roaming from place to place. Servants would change masters yearly or every two years; unlanded breadwinners and tenant farmers tried to change their place of residence every five or ten years, the aim obviously being to make some sort of economic career; but surviving relatives after the death of the head of the family soon returned to the lowliest positions.

4.5.1 Social Issues

The difficulties brought about by the increase in population, which became more and more obvious a few decades into the 19th century, made the question of the subsistence of the poor a constant subject of public debate. There was a strong divergence of views on the matter. The conservatives shrank from the growing freedom of movement of the workers, but also from the accompanying insecurity. They saw the solution in adherence to a statutory strong personal bond between employers and employed as in earlier times, while the liberals expected that free development of trade and industry and scope for individual initiative would generally turn out well in the social sphere.

Many people also cherished the idea that private charity could take suitable forms and be sufficient in scope. Both sides believed in legislation as the instrument for controlling the situation.

In practice, no distinction was made for a long time between the work-shy and those who had been made unemployed or destitute by circumstances. The municipalities, which were responsible for poor relief, became very careful to keep out inmigrants who needed help or who would come to need it. Municipalities waged a sometimes merciless war with one another over people who were unprovided for. The government drew no clear distinction between prison policy and employment policy until the 1840's.

In time the social question became a subject of action at national policy level. Several measures were taken to ease temporary difficulties that arose in connection with crop failures. Legislation on the poor gradually came to be humanized. Otherwise, the great public question of the time did not concern problems of providing for the lower class, but the distribution of power between the groups within the political machinery and those that were just outside and desired to get into it. A solution came about through the 1866 reform of representation, by which the old parliament made up of four Estates was replaced by a bicameral parliament appointed in a general election. However, the qualifying income limits imposed on both the right to vote and eligibility for office were such that large numbers of people were excluded.

While all of this was taking place, developments among the people took a new and unexpected turn.

4.5.2 Emigration

If an attempt had been made in 1850 to make a projection of the trend of population in Sweden up to the beginning of the 20th century, the following figures would have been produced:

1900 6.5 million
1910 7.4 million

In these years the actual population counts were as follows:

1900 5.1 million
1910 5.5 million

The higher number of inhabitants, 7.4 million, was not reached until 1957. The 'loss' of nearly 2 million was attributable to rather more than a million emigrants and their descendants.

During the first part of the 19th century, the known emigration

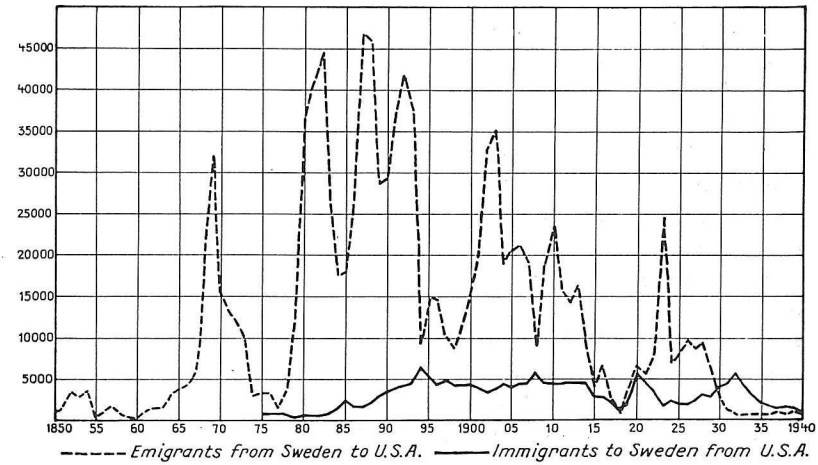


Fig. 4.2 Migration between Sweden and U.S.A. 1850–1940.

was not more than a couple of hundred persons annually. An increase began to appear during the 1840's. Migration for work extended out to neighbouring countries and, to some extent, became regular emigration. Some fairly small groups went to America, but this flow became stronger during the 1850's and, in the famine years at the end of the next decade, the reaction was explosive; America was now the predominate goal. One wave of emigration after another built up, right up to World War I.

The emigration from Sweden is part of a European process, which was a tremendous social phenomenon that cannot be readily understood by reference to any single, dominant, causal factor. When emigration had become well established, it became endemic to some extent for a few decades, as can be seen from the fact that the regions that sent the first emigrants subsequently became permanent centres of emigration. In time, of course, emigration spread all over the country so that no part was excluded. Nevertheless, strong regional differences persisted. A form of feedback from earlier emigrants was presumably an important mechanism which drew others after them. It is certainly right to assert in this connection that popular education should be regarded as an important prerequisite for emigration. Common man could communicate in writing. He could be influenced by publications and advertisements. The world beyond his home district now occupied a larger place in his ideas. Quite soon, emigration was commercialized and it became something of a business to recruit people and transport them to America.

There is perhaps reason to expect that it was the poorest part of the rural proletariat which left the country; but this does not seem to have been the case, nor was it the more wealthy. Everything points to emigration chiefly from the lower middle class – first from the rural areas – then also from the towns and industry. Crofters, craftsmen and children in these two groups were the typical emigrants, which has been interpreted as indicating that these were the people who were mentally so tied to farming that they still could not imagine themselves going into other occupations. At the same time, they were unable to satisfy their hunger for land in the confined Swedish countryside; but they could raise enough funds to pay for their journey of emigration.

Emigration did not leave the poor untouched, however. It can be observed in detailed studies that crofts and smallholdings begin to fall derelict during the period of emigration. This did not occur directly as a result of emigration, but through gradual domestic migration to the rather better positions that had become vacant. There is a striking coincidence between the peaks of migration within the country and the peaks of emigration. Emigration was clearly accompanied by internal redistribution of people to the newly vacated jobs.

The composition of the groups of emigrants changed over time. The overall figures that are available show that families occupied a dominant position in the initial stages, but individual emigrants subsequently took their place. The latter movements include re-immigration on such a scale that there is reason to regard some of the journeys to America as an extended form of seasonal migration.

The change in the composition of emigrants can be elucidated with reference to the shift in the age structure among emigrants in an area situated in the centre of one of the most affected regions of emigration (Figure 4.3). There were 733 emigrants in a parish which, during the entire period, had an average population of about 1600. It is worth noting that the emigration did not result in any absolute fall in the population. The excess of births and emmigration offset each other completely.

During each period, the age structure of the emigrants diverged to some extent from what was 'normal' for migration within the country, represented here by the period 1920–29. At first, emigration extended over all age groups, including many of those people who did not regularly take part in residential movements. Three-generation families leave their homes and, following a transitional period during the last few decades of the century, there comes a period in which it is chiefly single young persons who emigrate. The age structure now diverged from the normal in that the typical ages of migration were further accentuated. Behind

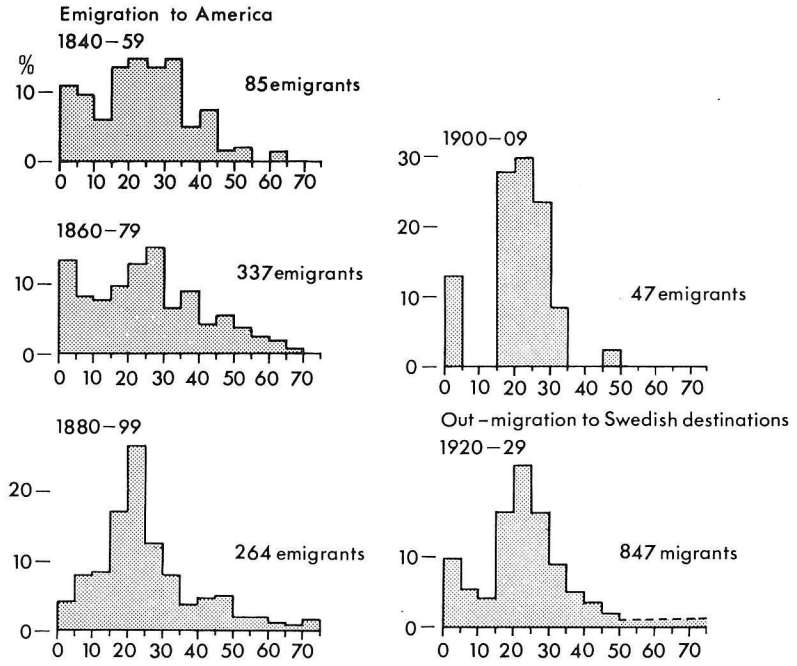


Fig. 4.3 Comparison of ages of emigrants during four emigration periods with those of migrants within Sweden during 1920–29 as percentages and in 5-year groups.

the changes also lay a shift of a social kind. The earlier emigration was dominated by families from the crofts, and the later one by single persons (children and employees) from the farms. It is not yet clear how much the process varied from district to district.

4.5.3 The Population Seen as Individual Biographies

At this point an effort will be made to demonstrate the characteristics of the period from the point of view of the individuals involved. A sample of persons will be followed from birth and onwards as long as the registers of one parish permit. Emphasis is placed upon how they have tried to find a livelihood. The sample includes everyone born in Asby parish from 1860 to 1869. A classification has been made according to the social position of the parents at the birth of the child. Group I includes farmers and a few estate-owners and officials. Group II includes crofters and craftsmen. Group III covers wage-earners without land and group IV, unmarried mothers of all classed (Table 4.1).

Table 4.1 Number of children born in Asby parish, Östergötland, from 1860 to 1869. Division in groups according to social status of parents. For details, see commentary in text.

	I	II	III	IV	total
Males	75	118	70	12	275
Females	78	76	59	15	228
	153	194	129	27	503

Figure 4.4 shows in graphical form what happened to the crofters' sons in the 75 years following their births. Four subgroups have been distinguished. The first (A) includes individuals who die within the borders of the parish of their birth. The large number of deaths in early years should be noted. The second group (B) includes the very small fraction which survives within the parish for 75 years. The third group (C) represents all those who have at some time moved out to other places in Sweden without ever returning permanently. The fourth group (D) includes those who emigrate directly to America. In at least half of the cases they accompany their parents as children. All the time and in all groups we observe many moves between dwellings inside the parish as well as out from it and back again.

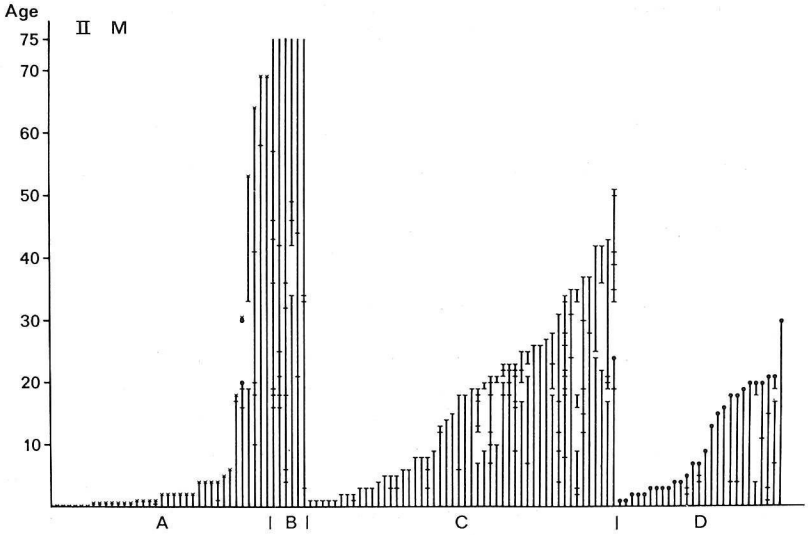


Fig. 4.4 Each male individual descending from group II (crofters and craftsmen) is here represented by a vertical 'life-line' which shows time spent within the parish of birth. Along the lines a small cross indicates time of death, a short horizontal line change of residence (within parish or Sweden) and a dot movement to (or from) America.

Individuals from the other social groups behave in essentially the same way so their graphs add very little new information. Therefore they are not included here. Already the resemblance between the fate of the members of all groups shows that there existed a fundamental similarity in living conditions within an entire population in a farming community of the Age. Clearly the standard of living differs between the farm and the tied cottage. But disregarding this we need a little more precision than a graph can give in order to trace the demographic differences.

Let us first consider how members of the various groups (IV excluded) die and leave the parish of birth at different ages. For each decade we compare the added length of observed life-lines with what we would have observed if everyone had survived up to 75 years of age and remained in the parish. The difference is expressed in percentages.

Table 4.2 Observed time spent by all individuals within the parish as a percentage of maximum possible time if every individual had survived up to the age of 75 and stayed within the parish all his life.

	Males			Females		
Age	I	II	III	I	II	III
70–75	16	5	3	14	11	12
60–70	19	7	9	17	14	15
50–60	22	8	11	19	16	17
40–50	21	10	13	20	18	17
30–40	23	13	16	21	21	21
20–30	34	19	24	36	23	32
10–20	52	36	46	58	35	50
0–10	74	59	64	77	62	69
% dead before 10	23	25	29	19	21	20

The decline in the number of individuals during the first ten years is very largely caused by early deaths. On the whole it turns out that the farmers' children, sons and daughters alike, remain in the parish to a somewhat larger degree than the other groups. Nevertheless during the time between the ages of 20 and 30 already two thirds have disappeared. Crofters' sons tend to leave first. The greatest differences are on the whole among the males. Class-differences among the females are discernible but not very great.

The clearest class-differences emerge when we observe mobility. The typical age of change of residence (which in this age also means moves between work-places) comes between 20 and 30. But it turns out to be rather low among farmers' children of both sexes. The highly mobile individuals are women from crofters' and wage-earners' homes.

Table 4.3 Number of movements within the parish or across its border per 10 individuals observed during 10 years (= 100 man-years).

	Males			Females		
Age	I	II	III	I	II	III
70–75	0	0	0	2	5	0
60–70	1	0	3	2	5	3
50–60	1	3	0	3	3	5
40–50	4	10	3	6	7	11
30–40	5	13	12	14	14	22
20–30	14	15	30	11	36	31
10–20	10	14	13	7	23	23
0–10	6	8	8	4	9	11

Emigration to America, finally (Table 4.4), is something which for this generation takes place before the age of 30. There is a much stronger tendency for the crofters' and wage-earners' children to emigrate. It should be noted that if we had been able to follow those who moved away to Swedish destinations also through time we would undoubtedly have found many more emigrations later on. So what can be shown here is not the full picture.

Table 4.4 Number of moves between Asby and America per 10 individuals observed during 10 years.

	Males			Females		
Age	I	II	III	I	II	III
70–75						
60–70						
50–60						
40–50						
30–40						
20–30	1	2	4	1	1	2
10–20	1	2	2		3	1
0–10	1	2	1	1	3	2
% emigrated	9	23	17	8	29	20

The mobility of young people within the parish turned out to be so high that it is worthwhile taking a closer look on what lies behind the phenomenon. We select a farm (with around 80 acres of arable land), made up of a main agricultural unit plus five crofts and tied cottages. With this small area as a frame we view the movements of people in and out over a decade, chosen to represent the period when our sample population from the 1860's is on the move.

As many as 76 different individuals resided inside the chosen area some time during the period of observation. But out of these only 12 remained all the time. No less than 29 just moved through, staying one or two years. One died and 10 were born of which 4 moved out within the period.

Despite this great turnover the number of people inhabiting the farm is remarkably stable from year to year. The number is in fact still less variable if we discount the children. One hundred years earlier, in 1785, this farm had 30 inhabitants that is around the same number. Practically no clearing of new land for new holdings took place here in the meantime. Thus it seems as if the farm could be considered to have a quite definitive carrying capacity and a rather fixed number of work positions for adults from year to year. Throughout the decade we observe new people coming in to fill the rôles vacated by those who have left in search of something else. Only the owner's family and some older crofters make up a stable population.

It seems evident that as the countryside in this age is predominantly made up of agricultural units which are all organised in a similar way, then it is also unavoidable that the population growth gives rise to a 'surplus' population which can find no position in the system when the clearing of new land is no longer possible.

4.6 Policy Linked to Population Growth and Distribution

Population growth as such was no longer a political goal in the same way as it had been a century earlier. Interest was now concentrated upon the development of farming, trade and manufacturing industry. Indirectly, however, it was impossible to avoid noting that the economic development was not sufficient to cover the growing population. At times there were vague ideas that measures could be taken to delay or make more difficult marriages among the unlanded. A few decades into the 19th century, however, it must have been clear that no effective means were available to break the growth trend. There was no alternative but either to ignore the population problem or try to provide for the worst-off sectors of the population, albeit barely adequately. In the event, both courses were taken simultaneously. In addition, other development paths were taken, such as further colonization in the North and development of the medical services, which had indirect growth effects on the population without being considered in that context.

4.6.1 The Labour Market, Housing and Industrialization

When it was gradually realized that unemployment and poverty can be undeserved, the most important contribution made by the authorities to employment was 'public works'. People began to realize that social and economic interests could both be served if capital investments in infrastructure or in basic public services were made that would benefit the economy in the long run, but were too big to be dealt with by contemporary private enterprise. The government and municipalities joined forces as entrepreneurs, chiefly within the spheres of transportation and water regulation, with a view to combining relief work with economically justified construction works. Some very large sums, for that time, were spent after 1840 on public works in areas of local depression. These included canal and harbour construction, dredging of waterways, bridge-building and hundreds of roadworks and drainage projects, scattered all over the country. After that, public works switched, almost automatically, into state railway construction, thus establishing important bases for subsequent industrialization. It can be assumed that, like the construction of the Göta Canal in its time, the public works produced a certain amount of technical training as a by-product and, in this way, also prepared the participants for new forms of work.

In the same way as the redistribution of land during the first part of the century became a basis for the advance of agriculture as a sector of the economy, railway construction came to be a basis for industrialization during the second part of the century. Industrialization progressed rapidly, especially from the 1870's onwards. Exports per capita (of which agriculture initially accounted for one-quarter) increased fivefold from the 1860's to the 1900's and, during the same period, the number of industrial workers rose from about 80,000 to about 300,000. Agricultural workers were the reserve that could be drawn upon; wages in industry were higher than in agriculture. However, this growth was small compared with the net emigration over the same period. Simultaneously with the increase of employment in industry, the numbers employed in commerce and communications probably increased from three to fourfold.

This change in the economy resulted in relocation of the population, quite local in most cases. Only Stockholm and a few other towns could be described as large industrial agglomerations. Swedish industry came to be located in small settlements. Since olden times, Sweden had had industrial villages near mines and waterfalls. Now hundreds of communities sprang up around the railway stations, attracting people from the nearby rural districts. The combined effect of railway building

and wide-spread industrialization was that there were no appreciable regional shifts in population distribution in the southern and central parts of the country.

The railways were often intentionally located so as to avoid old, established trading towns, with the aim of giving new districts a chance to develop. As a result, the new pattern of urbanization differed from the old one more than was necessary, a fact which now, one hundred years later, creates certain physical planning difficulties.

4.6.2 Regional Development

The settlement of inner Norrland had continued during the 19th century in accordance with official guidelines. It was aimed at a more intense agricultural utilization of the land. At the same time the Government was anxious to guarantee the supply of labour to the mines in Lapland and to maintain transportation staging points. The idea was that the settlers and the Lapps should live side by side without conflicts. But the authorities underestimated the degree of overlap between the land-use interests of the two groups. As time passed the policy turned out to be detrimental to the minority group and reindeer herding had to give way to colonization. The new settlements had a great impact on the nomadic life of the Lapps and was specially disastrous for the forest Lapps, who to a large extent were dependent on fishing for their livelihood. It was not unusual that the Lapps themselves became settlers in order to protect their resources. In order to settle the disputes, a boundary was finally established against the mountain areas, above which cultivation was not to take place. By this time, however, the interest shown by the authorities in forestry had come to outweigh the original interest in farming and, from the middle of the 19th century, the population growth in northern Sweden became mostly dependent upon forestry and forest industry.

The European market for forest products had opened. The steam engine made it possible to site sawmills at the mouths of rivers where the floating routes converged with the ports. The growth in industrial employment drew migrants from other parts of the country to the sawmill districts. An internal migratory movement took place which, to some extent, offset emigration and certainly provided an alternative for many people. Between 1850 and 1900, Norrland increased its population by 116 %, whereas the increase for other parts of the country remained at 39 %. Emigration to America from Norrland did not start on a substantial scale until the last decade of the century, when the sawmill industry began to stagnate. The emigrants included both industrial

workers and former farmers who had sold their well-forested lands to timber processing companies, but subsequently ran into economic difficulties.

The population growth in Norrland cannot be said to have been the result of a deliberate population policy in any sense other than that, in accordance with the prevailing liberal view, both the acquisition of land and the establishment of industry and recruitment of labour were left to the free play of market forces.

At the beginning of the 20th century, a certain reaction took place owing to the negative effects of the development upon agriculture. In 1906, the purchase of forestland by companies was prohibited by law.

4.6.3 The Emigration Issue

In the middle of the 19th century and right up to the end of the century, the official Swedish attitude towards emigration was diametrically opposed to the views cherished a hundred years earlier. According to the liberal view, everyone should be free to live wherever he wished. Consequently, all obligation to carry a passport was abolished in 1860. Some controlling legislation of a humanitarian kind appeared relatively early, however. In 1864, conditions for the 'transportation of emigrants to foreign parts of the world' were laid down. Emigrant ships had to be inspected and approved, the emigrants' health was to be checked before their departure, etc.

The parliamentary debates on the subject, few and far between, indicate that the generous attitude also concealed indifference or simply satisfaction that difficult subsistence problems were solving themselves. In the 1860's a proposal was put forward in parliament that the government should try to prevent emigration by distributing informatory literature, a step which seems almost certainly to have been caused by the Swedish consulates in America requesting funds to assist the numerous unsuccessful emigrants with their passages home. The bill was rejected, one of the reasons being that it could not be considered "in any way desirable to return a crowd of unfortunate emigrants to their homeland to burden the poor relief here".

When the question of emigrants was raised during the next few decades, the difficulties were pointed out that had arisen through many emigrants leaving unsettled financial obligations behind them, such as debts, unpaid taxes and families unprovided for. Nor did the proposals put forward to remedy this situation produce any measures. The only more concrete restriction that appeared during the 19th century was the 1887 regulation that persons liable for military service must not emigrate

without permission given by the King.

Clearly, such a widespread phenomenon as emigration could not continue without causing debate in the press, in official reports and within organizations. This debate flared up and faded in line with the waves of emigration; but not until well into the 20th century did emigration come to rank as a major political problem. One of the reasons was growing anxiety that the defensive power of the country would be undermined by the emigration of persons liable for military service, particularly the illegal emigration that undoubtedly occurred. Another reason was that certain agricultural interests felt themselves threatened by the appearance of a labour shortage. An absolute decline in the agricultural population had begun in southern and central Sweden during the 1880's. Arguments of the 18th-century type came to the surface again.

At the time, a new countermeasure had been proposed; support for the establishment of owner-occupied homes. As early as 1881, all obstacles to the partition of land had been removed. The homestead idea covered both the creation of independent smallholdings and workers' dwellings. A government fund was set up for the purpose in 1904 and, in that same year, it was decided that a great public survey on emigration should be carried out. This survey developed into the first major project of social science research in Sweden. The work was completed in 1913, when the period of actual emigration had come to an end. The survey hardly acquired any practical importance, but it did foster an image of emigration and its causes which only now is being revised.

4.7 The Demographic Situation Towards the End of the Emigration Period

Despite emigration on a massive scale, the total population rose, reaching 5.1 million in 1900. In the first decade of the century there was a further increase of nearly half a million. For the entire period 1850–1900, this represents an average annual increase of about 0.8 %.

The overall death rate fell to about 15 °/₀₀ and there is a considerable change in life expectancy. A new-born child can now expect to live 15 years longer than 50 years previously. Infant mortality has fallen, so that at least 90 % of the new-born survive their first year of life, while about 85 % attain adulthood. Two-thirds live to 50 years of age and one-half reach 65. Of those who have reached 15 years of age, almost 80 % live to 50. Male excess mortality has been almost completely eliminated.

Around the year 1900	Life expectancy at ages shown			Survivors of 100 new-born at ages shown			
	0	5	15	5	15	50	65
Men	54.4	58.1	50.0	86	83	66	50
Women	56.8	59.5	51.6	88	85	68	54

The marriage rate has continued to fall, and the proportion of unmarried women in the 45–49 years age group is now nearly 20 %. On the other hand, the average marriage age seems to have fallen somewhat, being 27 years now. The proportion of married women in the 20–44 years age group has continued to diminish, but is still rather more than 50 %.

The birth rate has been falling since the 1870's and, at the turn of the century, stands at 26 °/oo. This decline is probably due mostly to the trend of marriage rate; but also the overall marital fertility rate has fallen to some extent, expecially in ages above 30–35.

The fall in the number of births has, as a direct consequence, a fall in the percentage of children in the population. The proportion of old people increases.

Year	Males			Females			Both sexes		
	0–14	15–64	65–	0–14	15–65	65–	0–14	15–64	65–
1900	33.8	58.6	7.6	31.2	59.7	9.1	32.4	59.2	8.4

If we make the theoretical assumption that emigration had not taken place, a projection of the age structure for the year 1900 would look like this:

Year	Males			Females		
	0–14	15–64	65–	0–14	15–64	65–
1900	33.4	60.2	6.4	32.2	60.0	7.8

A comparison of the actual conditions in the year 1900 with the above table seems to show that, among other things, emigration increased the

proportion of old people and reduced relatively the proportion in the age group 15–64.

As railway building progressed, the later decades of the 19th century are characterized by extensive urbanization outside the framework of the administrative towns. The administrative towns contained 21.5 % of the total population in 1900. If we add urbanized areas to this figure, then the total urbanized population can be put at nearly 32 %. A considerable shift in the pattern of settlement thus took place. Unfortunately, this is not reflected in the official statistics for several decades, and the differences in demographic conditions between towns and rural areas that can be calculated for this interim period are, therefore, not very informative.

4.8 Concluding Evaluations

The most striking feature in a 19th century retrospect when taking the total population into account, is the great difference between what were private worries among huge groups of the population and what turned out to be general political problems at national level.

Subsistence was the desperately urgent problem for hundreds of thousands of people; the period became a stage in which 'a people was in search of a livelihood', to use the apt expression of a Swedish economic historian. However, the means of subsistence had to be provided on the 'every man for himself' principle. Discussions on the social issue did indeed result in some poor-relief schemes and in the organization of public works; but it is a far cry from these peripheral adjustments to the consideration of employment as a whole in a social context. When emigration started and grew it was, on the whole, met with silence by the official Sweden for half a century, until the needs of defence and labour requirements finally brought the subject onto the political arena around 1900. Population had very clearly fallen out of public thinking as compared with the 18th century, and interest now centred upon technological and commercial development with little consideration for the implications for people living under different kinds of circumstances.

The political channels between the most vulnerable population groups and the authorities had probably weakened, if anything, since the preceding century. These groups were certainly unrepresented in the old parliament of Estates. The income qualification for election still excluded them from influencing the composition of the new two-chamber parliament, in which the most well-to-do came to dominate the Upper House, while the appointments in the Lower House went to yeoman farmers and people with higher incomes. Thus, the purely formal

influence of the underprivileged was not improved. Besides this there was the probable development of an information channel structure unfavourable to these groups. The dissolution of the patriarchal forms of employment must have resulted in ever-diminishing contact between the dominant groups and the non-property-owners leading to the former feeling less responsible for supporting the case of the latter. It was to be a long time before trade union organizations filled the gap left by the dissolution of the guild system and of the system of personal service. It is worth noting that an agricultural workers' union was not formed until very late (1918); geographical dispersion of the population does not facilitate organizational co-operation.

Other features of the development of the information structure of society are also worth noting. Scientific activity moved away from the 18th-century broad discussion of socio-economic questions, and the Academy of Sciences became increasingly a forum for fundamental natural science research only. Agriculture acquired a special organ in the Academy of Agriculture ('Lantbruksakademien'), which devoted itself to agricultural engineering and economics, but not to the associated social questions. The leading political newspapers were the mouthpiece of the rising urban middle class and were not very concerned with the future prospects of smallholders, day-labourers and domestic servants.

The unlanded themselves probably embraced economic liberalism, with all its opportunities and risks, just as trustingly as did the well-to-do. Whatever the real situation, it was an anonymous mass of people without power that was separated from the Swedish population by emigration and which found its way to the expanding industry of North America.

Thus, although nothing that can be described as population policy in the strict meaning of the term was pursued, it was inevitable that both the commissions and the omissions of the authorities came to affect the population process. The most important point was that, in the overlap between the radical agrarian reforms and economic liberalism and the uncontrollable increase in population, a new social situation was created. This must be seen as one of the bases for both emigration and the subsequent industrialization. The hypothetical question which may be posed in retrospect is why, in this situation, industrialization was so late in coming? When was industry actually accepted as a perfectly worthy form of employment in comparison with agriculture? It is strange to find that, when steps to counteract emigration began to be considered some way into the 20th century, these measures were still not seen to lie in accelerated industrialization, but in support for the formation of new agricultural smallholdings.

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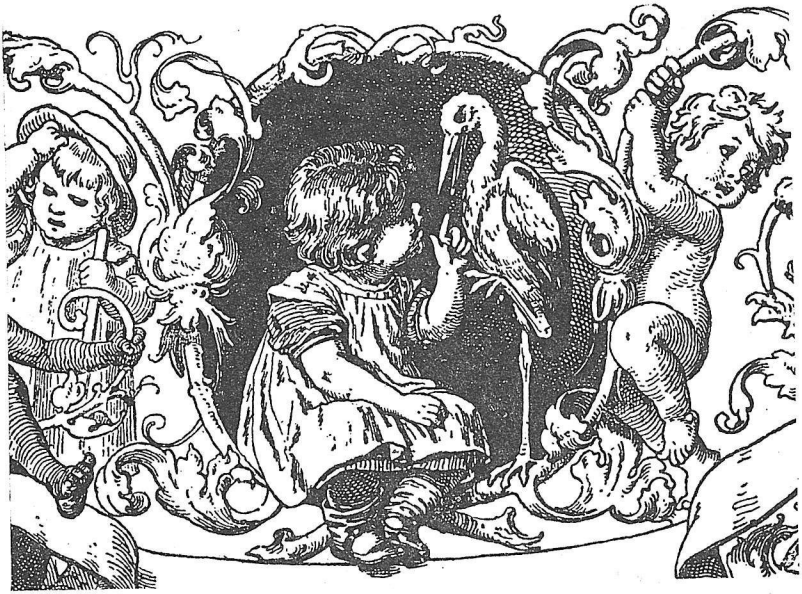

5 Crisis in the Population Issue

Picture of Age C (1930's)

The Picture of Age C depicts a period of increased industrialization and urbanization. Agriculture is rationalized and people leave the rural areas in ever-increasing numbers. The organized society emerges. The labour market comes under the influence of the large public and private organizations. International economic crises result in depression and unemployment, but the standard of living rises continually.

The death rate continues to fall and the birth rate drops to a very low level. The prospect of a decline in population makes population growth a political question. Means of increasing the birth rate are sought. Population policy becomes a springboard for social policy, with the improvement of conditions of life for mothers and families with children as a guiding principle. The birth of unwanted children should no longer be necessary. The debate on population involves the majority of people. Radio and newspapers play an important rôle as providers of information.

The demographic effects of the policy pursued are uncertain. Marriage rate and birth rate certainly rise; but the same tendency can also be

observed in other countries. The view of the relationship between population policy and social reforms persists.

A new view of labour market policy emerges, and measures to stimulate demand to counteract unemployment are introduced; the expansion of the public sector serves such a purpose. New groups find their way to the labour market, but encounter difficulties. The former emigration has now become net immigration. The labour market situation is used as an argument for a restrictive immigration policy. Married women become a factor in labour market policy, thereby revealing the conflict between work in the home and gainful employment. Child care is introduced as a public responsibility.

5.1 The Demographic Situation

At the start of the 1930's the population of the country was more than 6 million, but population growth was quite slow during the years that followed. The total increase during the 1930's was only slightly over 200,000 – or barely 0.4 % annually, on average.

Ever since the great influenza epidemic in 1918/19, mortality had shown a uniform downward trend, particularly in early infancy and youth. 95 % of the new-born now survived to their first birthday and, of those that attain 15 years of age, 90 % live to 50 years of age.

Around the year 1930

	Life expectancy at ages shown			Survivors of 100 new-born at ages shown			
	0	5	15	5	15	50	65
Men	63.7	63.2	54.0	93	92	80	63
Women	66.1	64.7	55.4	95	95	82	68

Following the great waves of emigration at the beginning of the 1900's international migration gradually declined. From 1930 onwards the previous deficit of migration with other countries became a surplus, which, however, was quite modest throughout the 1930's.

Except for the years immediately after 1930, marriage rate shows a great increase throughout the decade. The increase is at its maximum for the 20 to 30 age group. This in turn results in a fall in the average marriage age. The trend in fertility during the 1930's forms the final phase in a development that began around 1870, when the first signs of a fall in the birth rate can be discerned. From the previous relatively high level it had now fallen to a level insufficient for full reproduction. After

its nadir in 1934, however, the birth rate begins to rise again, a rise that continues for a further ten years. Then births reach a peak which is not subsequently exceeded. A similar trend can be observed in most other European countries; only the timings of the absolute minima and maxima vary to some extent. One finds that the decline was associated with both an increase in the number of childless marriages and a fall in the number of children per marriage. Attempts have been made to explain the great increase in fertility up to mid-1940's as a partially deliberate compensation for the deferment of births during the Depression.

The great decline in fertility has a strong effect on the age structure of the population. The proportion of children falls while that of the elderly continues to rise at the same rate as before. Above all, however, the most noteworthy feature is the very great increase in the middle age groups.

Thus, towards the end of the decade, as much as 70 % of the population is aged between 15 and 65 years, with 21 % below 15 and 9 % over 65.

The regional redistribution of the population during this period is perhaps less discussed than fertility but, in many respects, it is equally dramatic. Up to the beginning of the 1920's, the natural population growth had been sufficient to compensate for the 'flight from the land'. Now, as the result of a combination of continual loss through migration and a very low level of natural increase, the rate of population decline in rural areas subsequently increased. When emigration declines, almost all migration is from the rural areas to the towns. The consequent great increase in urban populations is at an annual average of almost 2 % during the 1930's. During the 1940's, the increase rises to an annual average of 3 %.

Simultaneously, the occupational structure changes. At the start of the decade the agricultural population is still the largest but, by the end of the decade, the population in manifacturing industry predominates. The agricultural population also declines in line with rural depopulation, and the 1930's thus herald the beginning of an era of greatly increased industrialization and urbanization.

5.2 Conditions of Life and Welfare

At the beginning of the 20th century Sweden was a poor country with many social and economic problems. The 1930's represent, in this respect, the beginning of changed conditions of life for many people and

generally increasing prosperity. Some of the most important changes are discussed below.

5.2.1 Health

It is difficult to elucidate health conditions for this period statistically; for the most part one is obliged to study the most extreme opposite of health – that is mortality. Death rate was declining throughout the decade, but wide regional variations could occur. The large towns and cities, particularly Stockholm, showed a much higher mortality rate for certain age groups. This is explained largely by poor sanitary and hygienic conditions resulting from overcrowding and generally bad housing. Statistics on the causes of death give some guidance for judging these conditions. Among the most common causes of death were various types of infectious diseases. Children's diseases predominated in the younger age groups and tuberculosis at around 20. However, this period means a great change in this respect. With the advent of antibiotics, infectious diseases gradually disappear as a cause of death. There could be wide disparities between different social classes in this connection as is shown in the following data from a 1930 survey of infant mortality in Stockholm:

	All income groups	Father's annual income (kr)			
		Below 4,000	4,000–5,999	6,000–9,999	Over 10,000
Deaths in first year of life per 1,000 births	36.7	48.9	38.3	31.9	14.3
Stillborn per 1,000 live births	15.1	17.5	15.8	13.0	8.0

The survey concerned children born between 1918 and 1922. It can, therefore, be assumed that the level was rather lower during the 1930's and also that some levelling-out had occurred.

The 1933 cost-of-living survey also gives some idea of the conditions although it provides only information on the private expenditure of families on health care and medical treatment. It is doubtful whether we can learn anything about health care or the availability of medical treatment. The most interesting fact is that total expenditure on medical attendance is, on the whole, a constant part of family income which falls rather than rises with family size:

Income Group	Proportion of income spent on medical services, with number of children:		
	0	2–3 under 7 years	More than 4 under 15 years
Low	2.2 %	1.9 %	1.8 %
Middle	2.3 %	2.0 %	1.9 %
High	1.5 %	1.4 %	1.9 %

These figures are not entirely accurate. Much of the medical care was provided at very low cost by the state, county councils and municipalities. The most interesting information these survey data gives is that the health of children was the most neglected: an increase in the number of children generally meant less satisfactory medical care for them.

5.2.2 Education

The first law on compulsory elementary schooling in 1842, laid the foundation for general education. As a result, Sweden came to occupy a prominent place regarding literacy. According to the 1930 population census, only 0.11 % of all persons between 15 and 70 years and 0.31 % of all over 70 could neither read nor write.

The basic schooling certainly had many defects; nevertheless great differences between social classes did not arise until further education. According to the 1930 census, the following breakdown of the population over 15 years can be made: elementary school only, 85.7 %; vocational school, 5.1 %; secondary school or higher, excluding school-leaving certificate, 6.7 %; school-leaving certificate and higher, 2.5 %. There is also a considerable social bias in higher education in that economic circumstances often governed this opportunity completely. Geographical location also played a very great part here with the school district over-represented among the pupils' places of residence.

Free adult education, run by popular organizations like the trade unions, temperance and co-operative movements has been particularly important. Here, we had, for example, the best forum for the nation-wide dissemination of information on sex hygiene and birth control, long before such information was included in the regular school syllabus.

The popular adult education movement first became established in the people's high schools which started in connection with the beginning of the democratization of the social order in the 1860's. Teaching was designed for adult students, giving them an opportunity for further education which they would not otherwise have had. The unemployment

in the Depression of the early 1930's greatly increased recruitment to the people's high schools.

A very important educational organization was that Swedish invention, the study group, created by the members themselves in the various popular movements. It is interesting to see what headed the list of subjects for these study groups (The Workers' Education Association 1943): 1. organizational studies, 2. mathematics, 3. singing and music, 4. English. The population question as a special subject occupied about fiftieth place at this time. This activity enabled many of those who lacked the opportunity to attend conventional schools to acquire knowledge which they considered valuable.

So although there were great defects in school organization, many other opportunities existed for acquiring a wide education and consequently, the general level of education was after all quite high.

5.2.3 Housing Conditions

A combination of a low rate of house construction, increased urbanization and higher marriage rate caused widesprad overcrowding. The typical family dwelling consisted of one room and a kitchen, regardless of family size. The gradual reduction of overcrowding was due mainly to the fact that families became smaller and not to any appreciable increase in the average dwelling size. The poor housing conditions and overcrowding hardly promoted public health, a fact which is celarly demonstrated by the available figures on infant mortality.

These points show especially how precarious was the social situation of children. For the children of parents in the low and middle income categories, poorer educational and medical care facilities, poorer housing conditions and, on the whole, poorer social security were frequently offered. At the same time and this fact should be stressed, for many people having children in itself a very severe strain on the family finances. The cost of a child aged between 1 and 14 was estimated, at that time, to be equivalent to one-third of the average income. In the light of these facts, it is perhaps not surprising that marriages with few children, or none at all, became more and more common towards the early 1930's, with all the ensuing consequences for the national birth rate.

5.2.4 Work and Wages

Prices and wages sank very low during the Depression in the 1920's. They subsequently rose to some extent but the relative rates of increases were

such that real incomes rose continuously. According to statistics the real wages of industrial workers rose by 52 % between 1913 and 1939. With the simultaneous shortening of working hours, real hourly earnings rose far more or by 88 %. So it was industrial workers that had the greatest increase in real wages. For privately employed administrative personnel, the increase was 11 %, and for agricultural workers it was probably between 11 % and 13 %.

Although the wage increases were quite considerable for many of the former low income groups, the distribution of income was still very uneven. The equalization that had been taking place for a long time had still not achieved any great effect in the mid-1930's. The distribution of income was such that half the households had about 28 % of the total earned income and three quarters about 53 % of the total.

The situation of women changed, owing to their increased participation in gainful employment outside the home. This, in turn, is connected with the fact that work in the home began to take less and less labour. More and more of the work that had been traditionally done in the home had been taken over by industry. Households dealt increasingly with finished or semi-finished products instead of producing them from raw materials.

The proportion of women among industrial workers had been rising for many decades; in 1930 it was at least 23 %. There are similar but rather stronger tendencies in commerce. In 1930, the proportion of women in commerce was 39 %; by 1940 it had risen to 46 %. A similar trend can be observed in other activities.

The gainful employment of married women tends in the same direction, although at a much more modest level. The proportion employed outside the home rose from about 8 % in the 1930 population census to 14 % in that of 1935/36 but sank to 10 % in the 1940 census.

Child labour, common in the initial stage of industrialization and still relatively common into the 1920's, then began to disappear gradually. It is significant that statistics on the number of child workers were not kept after 1932. It can be estimated from the 1931 statistics that about 1–2 % of 13- and 14-year-olds were recorded as workers. From then on, the occurrence of child labour can only be shown indirectly by reporting the percentages in a given age group who are studying:

Age group	Percentage of total who are full-time students			
	1930	1940	1950	1960
15–19 years	6	10	17	35

5.3 Welfare Problems From the Political Standpoint

5.3.1 Social Security

In olden times, illness, unemployment, accidents and old age among much of the population came under the protective function exercised by the large, three-generation family towards its members. It was supported by the neighbourhood, the parish and the church, which also bore responsibility for care. In the new nucleus family, this protection disappeared and the community had to assume an ever-increasing responsibility.

The earliest example is the poor relief which each municipality had to provide. (Legislation on this was introduced during the latter part of the 18th century but even then this meant little more than a formal ratification of what had long been the general rule.)

During the Depression in the 1920's and 1930's, poor relief played an important rôle in helping families suffering from unemployment, although the benefits paid out were very small. Otherwise, the largest categories in need of relief were children under 16 and old people, whose pensions were, in most cases, inadequate.

The community had assumed responsibility for providing for old people with the introduction of the general old-age pension in 1913. The amounts paid out were often completely inadequate. "They were just about enough to neither live on nor die on". Attempts were made for a long time to supplement the small amounts with extra allowances, but a thoroughgoing reform gradually became necessary. Legislation for such a reform was introduced in the latter half of the 1930's.

Security in sickness had been provided for a long time by making medical care available for all at low cost. The remaining problem was to compensate for loss of income during sickness rather than to cover the costs of medical care. At the beginning of the 1930's, a health insurance scheme was emboied in law, covering the population from 15 years upwards. The charges were graduated according to the benefit required. For financial security in case of accidents at work and occupational diseases there was a separate insurance scheme for which the employer was responsible.

5.3.2 Working Conditions and Unemployment

The economic expansion in the period following the Depression at the beginning of the 1920's was again interrupted when a new economic crisis and a new depression occurred at the beginning of the 1930's. This new crisis, brought about by the crash on the New York stock exchange

on 29th October 1929, reached Sweden relatively late; the first effects were not felt until the autumn of 1930. In this depression, unlike the preceding one, both agriculture and industry suffered. However, for agriculture the difficulties had already begun during the latter half of the 1920's. They were connected with over-capacity in production. Since similar situations occurred simultaneously in many other countries, this added to the difficulties of finding outlets for surplus production on the world market.

The economic crisis brought unemployment in its wake, which rose continuously until 1933, when nearly 200,000 applied for unemployment benefit. This was the most obvious effect of the Depression. Since it was so protracted, there was hardly any worker's family that was not affected at some time or other.

This hit young people worst since many of those born between 1901–15 had never been able to find permanent employment when the Depression came. Moreover, as each cohort born during this period was quite large (about 130,000) it would, therefore, have required a considerable economic expansion in order to find them all employment.

After the Depression years, employment began to rise again and, towards the end of the decade, it had reached the level of the pre-war period. Following a new increase around 1940, but on a much smaller scale, unemployment continued to fall. Since 1946 and up to recent years it has remained at a very low level.

One group that was specially hard hit by the insecurity on the labour market was women. Women had, with certain exceptions at the beginning of the 1930's, theoretically the same rights and opportunities as men. The exceptions applied chiefly to admission to certain types of posts, but also to wage-fixing. However, the most serious obstacles to gainful employment of women were not laws and regulations, but rather the conventions which restricted, and still restrict to some extent, women's choice of career and employment opportunities. Special difficulties arose for the married woman if she wished to work outside the home. The problem concerned not only difficulties in combining motherhood with employment but even more the habit of certain employers of dismissing women employees when they got married, became pregnant or had a baby. This was more often a threat to office personnel than to industrial workers; banks, insurance companies and business firms mostly adhered to the practice of dismissal on these grounds.

The large falls in wages and prices during the Depression of the 1920's may be regarded as an application of neo-classical economic theory: unemployment was due to the fact that the price of labour was too high. A decline in the rate of increase in wages would result in greater demand

for labour, and unemployment would then disappear. The possibilities that existed for helping the unemployed consisted partly in creating relief work and partly in paying out cash benefits through local unemployment committees. In addition many unemployed persons, especially breadwinners, received poor relief or some other purely municipal aid; but many of them had to manage on their own. It may certainly be said that the Government Comission on Unemployment became one of the most hated institutions Sweden had ever had, owing chiefly to the forms that assistance took. The benefit paid was entirely inadequate and the relief jobs provided had to be such that they could not be considered meaningful. With wages far below the general level the aim was to prevent these jobs from competing on the open market.

At the end of the 1920's, however, new ideas had been put forward by economists such as Keynes and by the so-called Stockholm School (Myrdal and Ohlin, among others). The argument was advanced that expansion of the public sector during a slump could stimulate the entire economy. Such an expansionist economic policy would have the dual effect of increasing the demand for labour, both directly and indirectly, while, at the same time, increasing the total demand for goods and services.

These theoretical studies were to become very important for a re-orientation of labour market and employment policy during the Depression of the 1930's. This meant increased cash benefits and relief work during unemployment. Moreover, the relief jobs were to be useful and pay market rates. For financial protection in case of occasional periods of unemployment a voluntary unemployment insurance scheme was the created, to be run by the employers themselves (1934). Also, state grants were paid out to 'recognized' unemployment benefit societies of this kind.

In many areas the various organizations involved in the labour market played a very important part. The workers had already begun to organize themselves in trade unions at the end of the 19th century. The Swedish Confederation of Trade Unions (LO) was formed in 1898. Its employers' counterpart, the Swedish Confederation of Employers (SAF), was formed in 1902. After a fall in membership connected with a major conflict in 1909, the membership of the trade union movement doubled during both the 1920's and the 1930's and, in 1942, reached one million. Groups of salaried employees also began to organize themselves in the 1930's. The organized workers undeniably formed quite a strong party on the labour market. However, the numerous disputes during the period up to the early 1930's pointed to the need for some form of regulation of the situation between employers and employees.

The number of working days lost through disputes (both strikes and lock-outs) was very high, as is seen from the following table:

Period	Working days lost per LO-member (annual average)
1925–29	3.7
1930–34	3.9
1935–39	0.7
1940–44	0.09

Negotiations between the two principal organizations, LO and SAF, resulted in the signing of an agreement in 1938 the 'Saltsjöbaden Agreement', as it was called.

In this agreement, a system of negotiation was stipulated, one of its effects being, that a conflict should not lead to a strike or lock-out without negotiations having taken place within a specified period of time There are also provisions concerning the resolution of disputes prejudical to the interests of the community, procedure for dismissals and lay-offs, etc. An important body was the joint Labour Market Board set up at the same time to resolve issues on which individual unions and employers could not agree. This agreement laid the foundation for the industrial peace which, with a few exceptions, has come to characterize the Swedish labour market.

A long series of improvements was made during this decade regarding working conditions. Even in 1919 the maximum 48-hour working week had become law, but a study in 1925 showed that this provision was not applied very widely. About one-half of the workers had a working week longer than that laid down by law, particularly in those sectors which had previously had a long working day (agricultural workers, seamen, restaurant and retail trade personnel).

Holidays were introduced for certain categories of civil servants at the beginning of the 1900's. The right to holidays for all employees was not embodied in law until 1938 when a 12-day holiday was stipulated. However, the law on industrial safety recommended holidays in 1931; holidays of varying duration were already allowed in some companies. Certain restrictions in legislation that had existed from the beginning gradually disappeared with the result that holidays were gradually lengthened. In 1946, the holiday period was extended to three weeks for certain categories of work and, in 1951, this longer holiday was introduced for all workers.

5.4 Population Policy

5.4.1 Immigration Policy

The political debate quite naturally came to be dominated by the population problem created by the exceptional trend in the birth rate. Although emigration had been declining for some years, and was also less than immigration from 1930 onwards, there is reason to dwell a little upon this question as well.

Politically, this question was connected with several of the problems of welfare discussed earlier – particularly unemployment – but the immigration policy also lent urgency to housing problems and racial questions.

World War I was followed by a period of liberalization of the exchange of people between countries, and Sweden, for her part, abolished visa requirements in the case of a number of countries, especially those from which no large-scale immigration was expected. However, the high unemployment after the war, not only in Sweden but also in other countries, necessitated a re-appraisal of immigration policy around the world. Because of the high Swedish unemployment combined with the fear of increased immigration from Germany and eastern Europe in particular, when immigration into the USA was greatly restricted through what was called 'quota legislation', the Swedish government introduced a Control Order in 1926. Its aim was to protect the Swedish labour market against increased immigration of visa-exempted foreigners seeking work. The many orders introduced after the war were finally combined in the Aliens Act of 1927, the chief reasons for which, according to the Minister concerned, related to the labour market. His case for the law also included references to the prevailing housing situation, the interests of order and security and racial aspects. The two latter reasons are perhaps particularly noteworthy in this connection. The Minister referred to them in the bill as follows:

"From the standpoint of security and order, all kinds of difficulties must be expected from increased immigration. It is common knowledge that there is now much more crime on the Continent of Europe than before the war. There is thus reason to assume that criminally-inclined individuals may try to come to Sweden in increasing numbers. The uncertain political situation in some other countries may also lead to immigration by a number of undesirable elements. Facilities for stricter control over foreigners who desire to immigrate to or stay in this country is therefore likewise necessary.

Very recently, another aspect has attracted more and more attention in various countries, viz. the racial aspect. This question has been made

very urgent by the great difficulties with which many countries with mixed populations have to contend. The value of the population of our country consisting of an unusually pure, unmixed race can hardly be overestimated. It is important, therefore, to control the immigration of nationalities whose assimilation with our people would not be to our advantage".

The Aliens Act did not bring about any greater changes than did earlier regulations concerning the right of aliens to immigrate to, stay and work in Sweden. Many of the regulations included in this Act, for example those concerning residence permits and work permits, are still in force today. Through the effective controls exerted by the regulations introduced from World War I to the end of the 1930:s, barriers to immigration were maintained even when the trend of political events in Europe created an ever-increasing pressure of refugees on Sweden's borders.

Typical of the thinking that lay behind official policy during the 1930's, and a possible explanation of the severity of application of the instruments of control in the immigration laws, is the statement made by the experts on aliens in 1937 that "those who have left their homeland because their opportunities for livelihood are limited there owing to their race or for some other reason, or, because they experience discomfort there", should not be regarded as political refugees. Humanitarian considerations should certainly apply, but only insofar as no risks were incurred for our country.

It was the crowds of refugees that the war brought over our borders and the 'discomfort' revealed by the German concentration camps which first necessitated changes in both the laws themselves and in their application.

5.4.2 The Population Issue Becomes Urgent

At the beginning of the 1920's, the birth rate had reached such a low level that it no longer sufficed to maintain the numerical strength of the population in the long run. Population statisticians thought the situation was serious but experienced difficulties in making their voices heard. This was due partly to the fact that they could not clarify satisfactorily the relationship between the birth rate and population growth but perhaps mostly to the fact that there were other, more immediate problems which occupied people's thoughts, such as unemployment and the economic depression.

The interest shown in these questions did not become general until Alva and Gunnar Myrdal, published their book "Crisis in the Population

Issue" (1934). It resulted in intensive discussion of population problems and was an incentive to enquires into population policy at the end of the 1930's and in the 1940's. As a result, what is presumably the basis for the view of population problems that exists in Sweden today was created.

In the book, two requirements hitherto considered incompatible were brought together: the necessity for an early increase in the birth rate and the need for a number of reforms in the sphere of social policy and policy on sex. The connection between reforms of welfare policy and the requirement of population policy to stimulate the birth rate was elaborated in detail. The book contained a whole catalogue of measures which should be taken immediately if the threat of a population decline was to be averted. What were the proposals? "*Maternity welfare,* increased *maternity benefits,* larger *tax-free deductions* for dependent children. Also, *subsidized housing allowances* for large, poor families; *free school meals* and *price reductions* on essential foods; a *health service* rationalized in different respects and aimed especially at the child's physical and mental health; a school system aimed more at the moral upbringing of children, their proper incorporation into the community and their development into responsible citizens; a rationalized *choice of careers* and much cheaper *educational facilities, nursery schools* and other arrangements to provide for children aged between one and seven years, hitherto almost completely forgotten in social policy. This also gives gainfully employed mothers a chance to have children, and so on. Finally, and perhaps above all else: *information* and *mass education* in questions of housing, nutrition and health, etc." (Quotation from Dagens Nyheter, 6-12-1934).

One idea in particular was advanced, viz. 'voluntary parenthood'; no unwanted child need be born, only wanted children.

It was important to emphasize this at a time when experiments in population policy with a strong compulsory element were being conducted in the totalitarian states on the Continent. The Myrdals definitely repudiated 'fertility awards', the quantitative purpose of which completely displaced the qualitative. By qualitative population policy they meant a prophylactic social policy without any element of the current symptom-curing assistance activity of poor relief which was often felt to be humiliating by those seeking assistance.

5.4.3 The Reports on Population Policy

The experts and debaters on population policy wanted immediate action, arguing that there was little time left to solve the problem. In the opinion

of the politicians, however, it would be quite a long time, 10–30 years, before the effects of any immediate population measures would show.

"From the standpoint of population policy it is important above all else to emphasize that, during the next few decades in particular, with the fertile, able-bodied age groups abnormally numerous, the time will be rapidly running out for population policy measures which, if they are successful, will also to some extent better maintain both the necessary conditions of population size and economic conditions for a successful population policy in the future". (Social Housing Report, 1935.)

Parliament responded to the interest shown in the population issue. In 1935 the Commission on Population ("Befolkningskommissionen"), in which Gunnar Myrdal became a driving force, was set up. Attempts were made to implement the ideas advanced in the book "Crisis in the Population Issue". Intensive work began and continued for three years, resulting in seventeen reports.

After the Commission had submitted its recommendations in 1938, the government announced that there would be a halt in the reform programme. One factor contributing to the diminished interest in the population issues was perhaps the fact that the birth rate had begun to rise again. A feeling that 'the population problem is resolving itself' therefore began to spread and interest in a population policy cooled.

At the start of World War II, the debate on population policy flared up once more. The immediate reason was that the birth-rate curve, which had previously begun to rise, once again took a downward turn. If the debate in the mid-1930's was of a partly socialist and partly national character, it was now predominantly nationalistic. The general demand for defence that was now expressed enabled people of all political persuasions to ask themselves what purpose external defence would serve if the population failed to sustain itself by national regeneration. The nationalism of the early war years also supported, to some extent, racial ideas and conceptions.

In this situation the government considered it necessary to appoint a new Population Committee in 1941. The Committee largely developed further the work done by the earlier Commission on Population.

The Population Committee is an excellent example of how short-term and long-term motives and considerations were perpetually interwoven. In its work it continually gave consideration to immediate problems in connection with national mobilization and food supplies. At the same time, attempts were made to make some of these questions permanent elements of social welfare policy.

In order to enable measures of social policy associated with population policy to be implemented in a democratic country, a general concensus

must exist, irrespective of party political considerations, regarding the external, concrete objectives of population policy. Such a consensus had existed in Sweden ever since the end of the 1930's, when there was general agreement in all political camps that families with children should be compensated for the expenses incurred. Thus, the desire was expressed that living standards should be equalized between families with many children, few children and no children. This transformed the population question into one of general social policy. The question of population gradually added another field to social policy – that of care of the home and family. During the 1940's, parliament passed resolutions on, for example, day nurseries and kindergartens, questions of abortion, loans for newly-married couples and school meals.

The first Commission on Population had always tried to pursue a policy of assistance in kind – i. e. help should be given as far as possible in the form of various goods and services, instead of cash benefits, for the people to use as best they could. The new Population Committee pursued a policy of consumption guidance, for example through public spending on the building of family dwellings. The two approaches were basically the same in that the people's essential needs should be covered first, and those of the poorer levels of population should obviously be given priority. This policy of assistance conflicted with the goal of population policy that all families with children, regardless of class, should receive help with the expenses of their children. On this crucial point the Population Committee had to bear a lot of criticism. "Its proposal would only have benefited the poorest to the detriment of the middle class". The proposal on child allowances was a compromise. All families with children, regardless of income, would receive child allowances. At the same time, tax concessions for children, which favoured the highly-paid owing to progressive rates of taxation, was abolished.

The problem of housing was regarded at the beginning of the century chiefly as one for the working class. The aim of the statistics gathered was, chiefly, to elucidate the major complex of problems experienced by manual workers. Owing to the rapid growth of the towns, housing problems were concentrated and most obvious there. Traditionally, housing conditions were not dealt with in the public censuses of population as in other countries. Instead, these particulars were compiled in separate housing censuses which were not conducted regularly.

Both the Commission and the Committee on Population attached by far the greatest importance to family housing. This was, they maintained, a fundamental pre-condition for solving the population problem. Family housing conditions were therefore, for the first time, made the subject of a detailed study in conjunction with a housing census in 1933. With the

general conviction that there were no slums in the towns, no doubt derived from the impression that most dwellings looked well cared for from the outside, the revelation of the very low standard of accommodation came almost as a shock. The Population Committee was quick to point out the possible influence of overcrowding on birth rates simply because families refrained from having children under these conditions. The Committee made housing allowances for families with children one of its principal recommendations. The housing allowance recommendation is an excellent example of how, in a single stroke, the Committee endeavoured to combine and meet a number of aims: population growth, equalization of living standards, full employment and increased production.

The abortion question, too, opened wider perspectives for reforms. Here, however, the Commission on Population failed in its attempts to use this question to bring about necessary reforms of social policy and policy on sexual matters. It did not wish to approve recommendations on abortion on social grounds which, according to the Commission, would be tantamount to declaring the community to be incompetent in social and economic matters. Instead, a number of more limited social and family planning reforms should be carried out. The results were quite negative, since neither the reforms nor the abortion recommendation were implemented. The principal result was that the law restricting the sale of contraceptives was abolished in 1938 and in 1945 parliament passed a resolution that pharmacists were obliged to stock contraceptives. A recommendation on instruction in sexual biology and sex hygiene for elementary schools was first made in 1942. The aim of this instruction was to emphasize that "sexual restraint should be exercised until the individual is in a position to set up a home and care for and bring up his children". In 1956, sex instruction in schools was made compulsory.

Quantitative population aspects clearly emerged in the question of abortion, and it was very much because of this that the legislation on abortion assumed a more restrictive form than earlier recommendations had intended.

The Commission on Population had devoted one of the reports to the flight from the land. Like the later Committee, it could only affirm here that a path had been taken from which there would be no return. The task now was to make the best of the situation, and it had to be ensured that the rural areas were not treated unfairly in relation to the towns. In this connection, social policy could fulfil a function of equalizing standards between town and country.

It was found, however, that the recommendations for action put

forward by both the Commission and the Committee were best suited to larger cities. This was due mostly to practical circumstances such as the more substantial population and taxation base. The Population Committee, in particular, had to bear criticism that many of its proposals (e. g. day nurseries and kindergartens) would benefit only the urban population. Exceptions here were social domestic help and the building of collective laundries in rural areas.

In the field of labour market policy, both the Commission and the later Committee examined the position of gainfully employed, married women. The Commission on Population succeeded here in improving the legal position of these women and, to some extent, their economic position as well in connection with maternity leave, although this applied only to the few women who were employed in the Civil Service.

At one point the Committee tried in vain to safeguard the position of gainfully employed women by stipulating eight months' statutory maternity leave. Women's trade unions and professional organizations feared, however, that such a proposal would make a woman's position on the labour market more difficult and would lead to a general reduction of job opportunities for women.

A conflict existed between the aim of increasing the birth rate on the one hand and the need for female labour on the other. During the first half of the 1930's in particular, owing to unemployment, there had been widespread opposition among men to the gainful employment of women, especially married women 'who had a man to provide for them'. The objections to the gainful employment of women were subsequently based upon arguments of population policy, to the effect that gainfully employed women would tend to have fewer children than those who stayed at home.

As the economic boom developed, this opposition died away and then, during the war, there was an obvious need for more labour, temporary labour in particular, and the question of female labour therefore again came under consideration. Once more, the population policy argument came in handy but for the directly opposite purpose. Gainful employment could widen the outlook of women, which would benefit them in bringing up their children. The solution here lay in providing more part-time work primarily for married women and in establishing more day nurseries and kindergartens. Questions of labour market policy weighed the most heavily when the 1943 resolution was adopted to give state aid to the partially developed system of child care.

The needs of trade and industry for more labour during the 1940's resulted in more and more women being brought into employment. Most of them certainly had only temporary jobs which made no impact

on labour market statistics. The greatest increase in female employment took place under the war-time administration. Actually, there was a shortage of female labour during the war which may indicate that many women shrank from taking up paid employment. Contributory factors here may have been poor working conditions and population policy propaganda. Faced with the choice between poorly paid routine work in a factory or an office and staying at home and looking after the home and children, most of them opted for the latter.

5.5 The Subsequent Population Development – Expectations and Actual Outcome

The population of Sweden continued to increase during the 1950's and 1960's at about the same rate as after the middle of the preceding century. The forecasts from the 1930's of a decline in population in the post-war period were not fulfilled. Large-scale immigration from abroad and a high birth rate during much of the 1940's were the principal reasons for the continued population increase. As have been seen from the Picture of Age B, the population increase had been slowed chiefly by large-scale emigration. Thus, the rate of increase has been constant despite wide variations in the birth rate and pattern of migration vis-à-vis other countries.

What were the expectations during the 1940's regarding the 1950's and 1960's? Was there a general view that the population would increase at the rate actually realized? Can the miscalculations made serve as a guide for today's estimates for the future?

Although it has been found that the rate of urbanization was often underestimated at the beginning of the 1940's, there existed obviously an awareness that the growth of urban industries was a powerful force, attracting migrants from both the rural areas in Sweden and other countries. In a study published in 1946 (Ahlberg-Svennilsson) an estimate is given of the future population in agriculture and in the non-agricultural sectors. In what was estimated to be the most extreme case, the decline in agriculture was expected to be 2 % annually – which would have meant that agriculture would account for just over 20 % of employment in 1960. The actual value was 13 %.

In the first few years after the war a decline in the productive population of the country was no longer expected. It was estimated, however, that any rise would be so slow that even minor fluctuations in this trend in different parts of the population would have immediate consequences. One forecast points out that more than one-half of the increase in the economically active male population would occur in

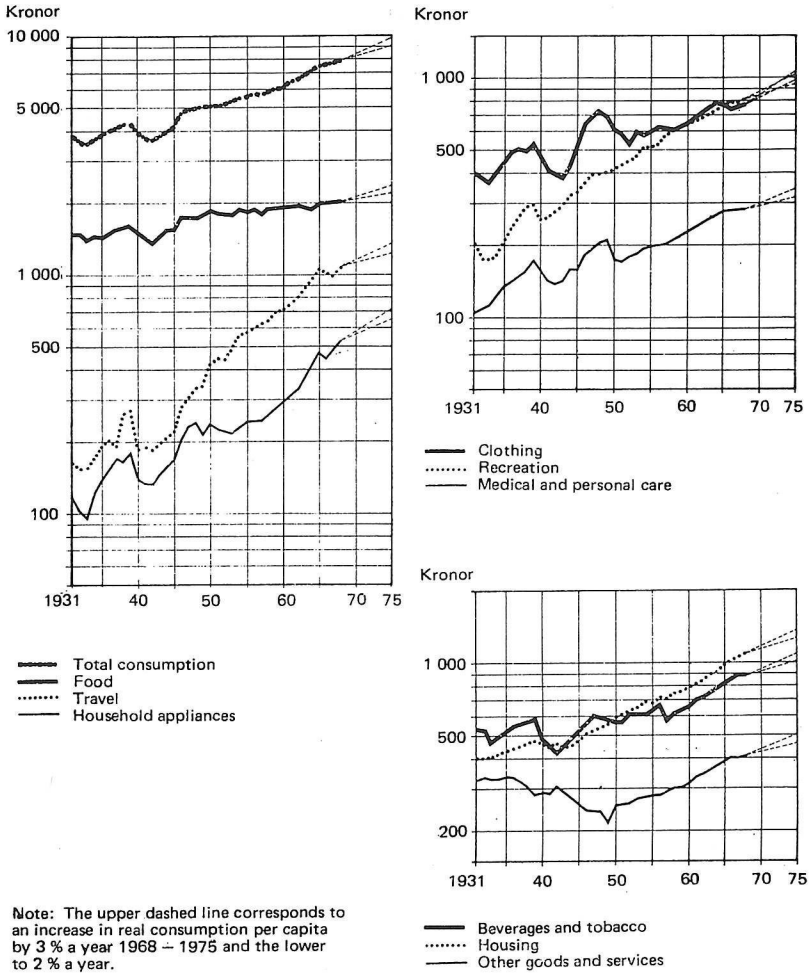

Fig. 5.1 Private consumption per capita 1931–1975. 1964 prices. Logarithmic scale.

Norrland between 1940 and 1960. In the case of economically active women, all of the increase would occur in Norrland.

The picture of the development of the population and of trade and industry sketched at the beginning and middle of the 1940's was as follows:

"Industrialization and population increase have hitherto followed each other. Now, however, we could be faced with a stage of industrialization which is not accompanied by an increase in the national labour force.

There is good reason to wonder whether the structural adjustment of the labour market to the trends in the economy under these new conditions can proceed as smoothly as before . . ."

"With regard to the net addition to the productive population or, in other words, the changes in the labour supply, it might seem, of course, to be unimportant for labour mobility whether the population is growing, constant or shrinking. The main thing might seem to be an individual tendency among labour, independent of such trends but decreasing with age, to change jobs and localities. However, a study of the labour market during the previous period of industrialization shows how important the population growth itself must have been from the viewpoint under discussion here . . ."

The authors go on to point out that the natural increase of the population employed in agriculture played a prominent rôle as a reservoir for the recruitment of labour for the urban industries. The opinion is held, however, that these particularly mobile additions to the population would decline during the 1940's and 1950's. It was estimated that in agriculture they would amount to 15,000 men and 30,000 women respectively per decade, compared with 111,000 and 146,000 during the 1930's. It was predicted that a considerable proportion of the local net addition would occur in inner Norrland. It was pointed out that the

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Fig. 5.2 a–c Up to the end of the 19th century, the majority of the population lived in the low density rural areas. Thereafter, as shown in Fig. 2.2, there was a great population growth in urban centres. In 1970, at least 80 % of the population lived in these centres, as against 30 % in 1900. The urbanization trend has been paralleled by the growth of the service sector of the economy but it is interesting that there has not been an expansion of industrial employment commensurate with the growth of the urban population.

In general the proportion of the population in the youngest age groups fell in all types of settlements during the 1950's and 1960's, while those of the older groups increased. This is illustrated in the figure. The percentages for the ages below 15 years are given for 1970 for the major population centres of the country. The figure also shows how the population has aged. In 1950, there were only a few places in southern and central Sweden where the proportion of the population over 65 was higher than 12.5 %. In 1970, the highest percentages were in northern Sweden; proportions of more than 17.5 % were not uncommon. In northernmost Sweden and in the larger towns, the ageing of the population had made the least impact. For the north of Norrland, this is because the birth rate up to the end of the 1960's was much higher than the national average. At the same time, the area had a high net emigration.

The highest percentages of elderly persons are in southern Norrland. There has been migration from this area over a very long period. At the same time, immigration from abroad and from other parts of the country has been insignificant in the 20th century. The birth rate is on par with the national average.

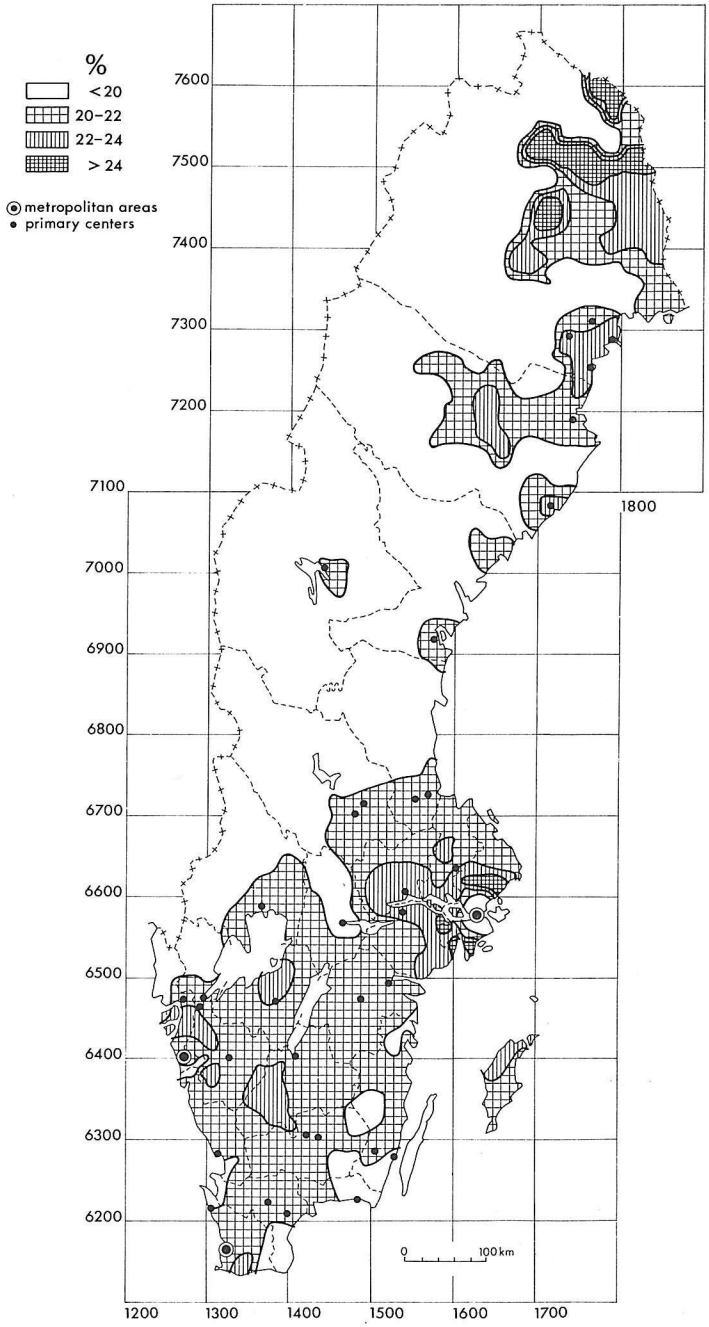

Fig. 5.2 a Proportion of the population in different age-groups. Age-group 0–14 year, percentage of population 1970.

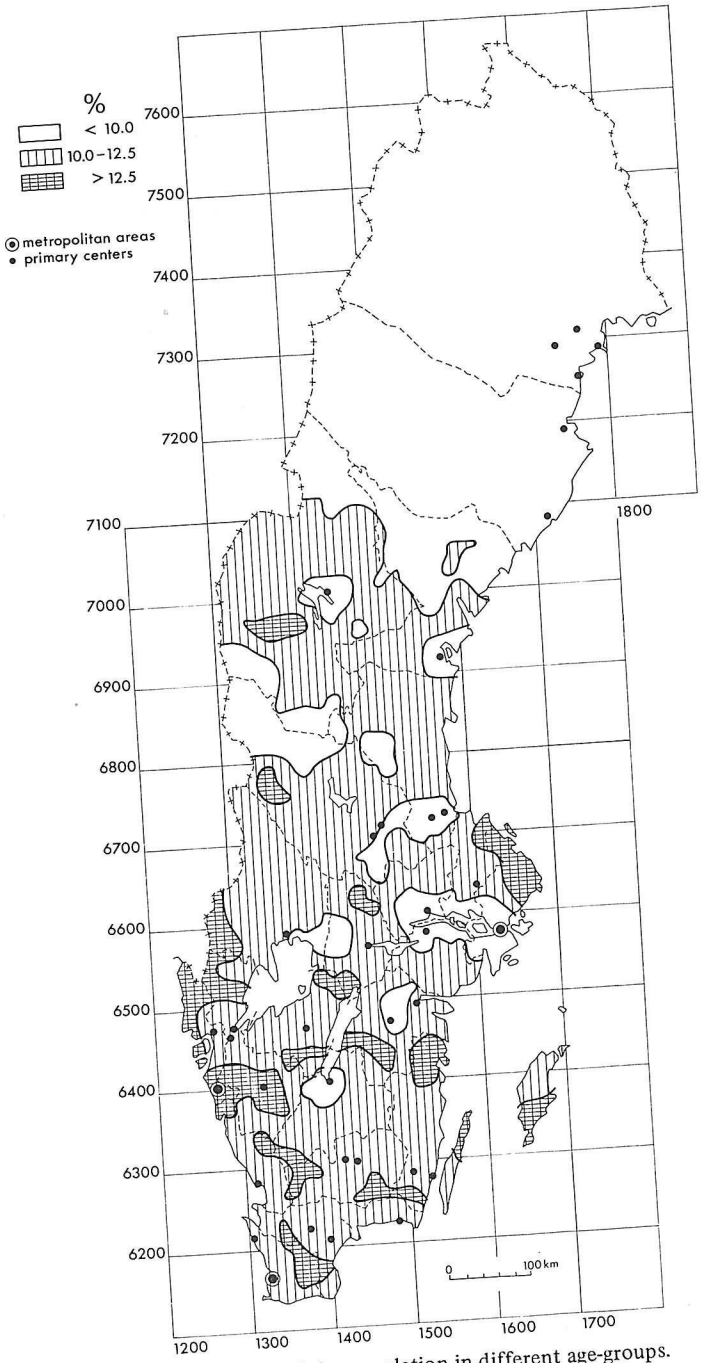

Fig. 5.2 b Proportion of the population in different age-groups. Age-group 65–w year, percentage of population 1950.

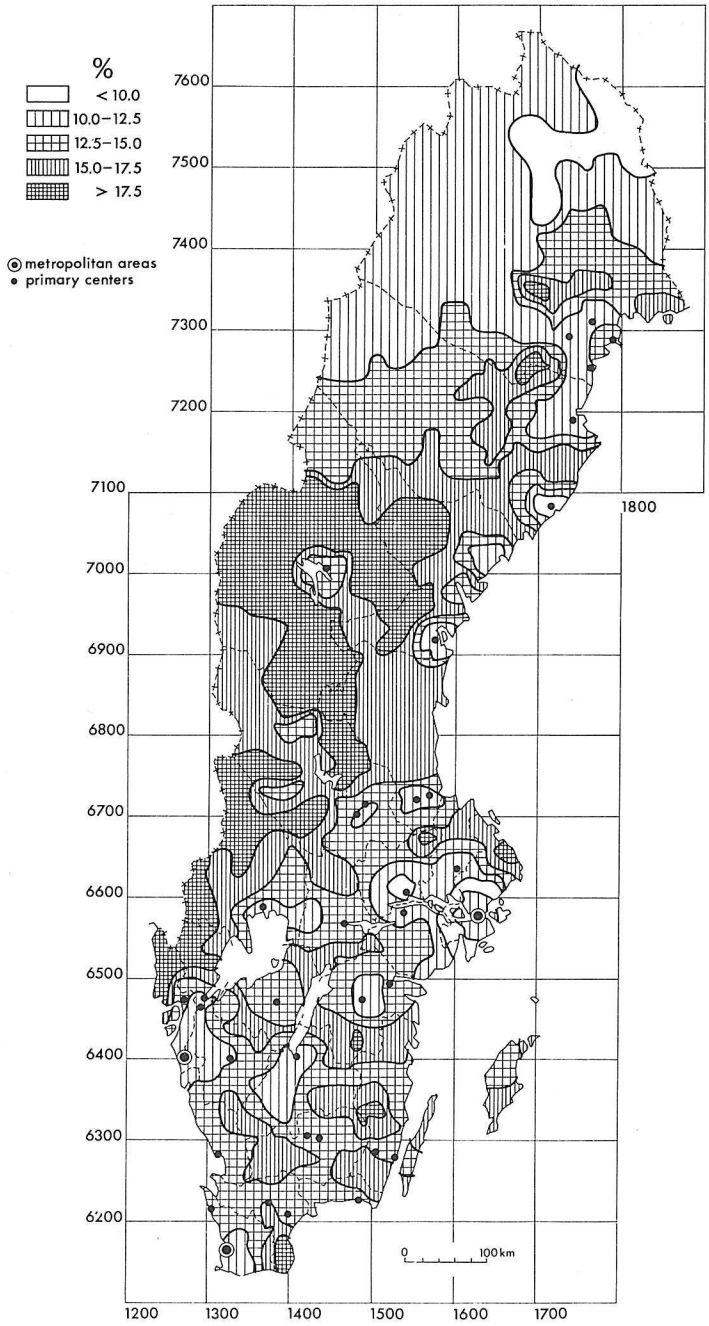

Fig. 5.2 c Proportion of the population in different age-groups.
Age-group 65–w year, percentage of population 1970.
Source: Orter i regional samverkan (Urban settlements in regional co-operation) SOU 1974:1. Stockholm.

significance of this addition for migration between different economic sectors would be limited by the population in this area being much less locally mobile than in the rest of the country. The forecasts were based upon the assumption that there would not be any immigration on a greater scale. However, in the report the question is posed whether it would not be advisable in the next decade – when it was estimated that the labour supply would stagnate – to overcome the difficulties of adjustment in the economy by encouraging an appropriate level of immigration of labour from other countries. Between 100,000 and 200,000 immigrants over a 10-year period was considered a suitable level for reducing the serious friction which would otherwise inevitably occur on the Swedish labour market.

Contrary to the expectations of those who made the population forecasts in the mid-1930's, the view now was that Sweden would become a country with active immigration. Although the great surge of immigration occurred rather later than estimated, it proved to be a correct estimate. That the estimate proved right may seem remarkable in view of the fact that urbanization and, hence, the decline in the agricultural sector was faster than anticipated. One of the incentives for immigration should then have disappeared. One explanation may be that the immigration boom was postponed until the 1960's just because the decline in the agricultural sector was more rapid than originally expected.

What would the picture for the period 1940–73 have looked like, drawn against the background described in the preceding section? Obviously, great attention would be given to the fact that Sweden was a country with a stationary population. One of the more interesting subjects for analysis would thus be the implications of zero population growth for different sectors of the community.

Among the alternative courses of events is immigration on a fairly large scale. Another course would have followed had there been a brisk 'boom' in babies. The rising birth rate towards the mid-1940's might have inspired such a forecast. Demographically moreover, it would have been natural to discuss greatly reduced mortality rates.

With the knowledge that we have today, events could have taken a number of other courses, among which can be counted the break-through of car transport and the associated moility, along with the introduction of television. Rapid capital formation in industry and the expansion of the public sector are circumstances barely touched upon in the literature from the beginning of the 1940's.

It was commonly thought in the mid-1940's that structural changes on the same scale as before could no longer occur through the surplus labour in certain industries or regions moving to expanding areas of industry.

Faster development towards increased industrialization must be based upon a reduction in employment for other sectors of the economy.

In the discussion of these regional problems, the question was raised whether efforts should be made to encourage labour to move to the firms or to encourage the firms to move to labour. Immediately after the war it was noted that, instead of attracting more labour to the old industrial areas, firms began to seek labour in smaller subsidiary companies. The chief aim here had been to utilize the surplus female labour that existed in towns, with a bias towards 'male' industries.

The entry of women into gainful employment is an essential part of the picture that could have been drawn. At the beginning of the 1940's, there is an awareness that a reduction of 1 % annually in the number of women working at home would increase the supply of female labour for urban industries by almost 200,000 in 20 years. Thus, a natural alternative course of development in the picture of events occurs where measures are implemented to encourage women to take up gainful employment.

It is impossible, of course, to give in retrospect a true picture of the ideas and feelings that characterized a distant period of time. Factually, it can be stated that the population of Sweden increased from 6.4 million in 1940 to 8.0 million in 1970. Immigration from abroad accounted for a very large proportion of this increase. Fertility remained fairly stable on the whole, despite a big upturn in the birth rate in the mid-1940's and a smaller one in the mid-1960's, when the population bulge from the 40's reached fertile age. Mortality showed a continual decline and is today at one of the lowest levels observed in the world. The agricultural sector declined fast than had been anticipated at the beginning of the 1940's. Industry's share of employment reached its peak at the beginning of the 1960's; service industries now account for more than one-half of the number employed. There has been a great increase in female activity rates, particularly in the later 1960's.

Sweden had net immigration throughout the period 1940–70 and, at the same time, there was a great increase in the population of the cities and large towns. In 1972 there was a net emigration for the first time since 1930. City expansion had also ceased, at least temporarily.

At the beginning of the 1940's, people were undoubtedly prepared to plan for a non-growing population. There were writers who asserted that an active location policy should be pursued in order to reduce the risks of social problems, ageing of the population and destruction of capital. At the same time, great hopes were placed in the spontaneous decentralization started by industry on the outbreak of the war.

The fact that the picture turned out to be different is probably due, partially at least, to the rapid growth of the public sector. The

development of medical services and education was on a large scale.

The expansion of education is partially explained by the boom in babies in the mid-1940's. Owing to a shortage of graduates in the 1950's and 1960's attempts were also made to increase the numbers entering higher education. This was also coupled with the political ambition of making university education available to as many people as possible. After a massive expansion programme in the sixties, a large surplus of graduates has recently arisen and consequently the number of new students entering the universities has dropped sharply.

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6 The Advance of Welfare*

6.1 Development of Welfare Philosophy

A line of evolution: emergency provision – help for self-help – integration in society – equality – security.

6.1.1 Liberalism

The liberal ideology, which gained increasing support in the 19th century, also embraced a recognition of the concern of the individual for his own welfare. This individual welfare is at variance with the responsibility of the individual towards traditional collectives such as household and home district, kinship and nation. Many deviations from traditional family patterns have arisen from individualistic considerations: marriage should be a means of achieving personal happiness; it is individual preference and not family requirements which decides the choice of marriage partner; dissatisfaction justifies divorce; the number of children should be regulated for the benefit of the whole family.

6.1.2 Poor Relief and Humanity

Liberalism adopted a rather cool attitude towards state interference in the private lives of citizens. Many liberal politicians strove to achieve a situation where the state and institutions established to remedy social problems were kept apart. This view was clearly expressed in the debate on poor relief in the 1860's. Poor relief to the needy was to be based on a philosophy of humanity and mercy. It should not be obligatory, yet based on voluntaryism, compassion and Christian help, since "all help was an act of charity". Behind this thinking was the idea that it was people's own fault if they were poor and destitute. The condition was interpreted as God's punishment or, at least, as a sign of misconduct. This notion, in turn, was made possible by and based on the belief that poverty and distress were not so widespread after all, and was in fact due to a lack of knowledge of their causes and extent.

When this part of the conception of reality began to change, the

* This chapter is based on K. Samulesson's article "Värderingar i svensk välfärdspolitik" (Values in Swedish Welfare Policy) included in "Från fattigdom till överflöd" (From Poverty to Affluence) ed. Koblik (Wahlström & Widstrand 1973).

notions of humanity and compassion also began to be re-evaluated. At the same time critical analysis caused the conception of humanity to disintegrate.

The relief nature of the notion seemed increasingly humiliating and therefore inhumanitarian.

6.1.3 Resocialization and Rehabilitation

There appeared a gradual swing towards the thought of resocialization and rehabilitation. When people's difficulties and poverty began to be viewed as products of economic and social conditions, relief gradually took the form of 'help for self-help'. At the same time, greater emphasis began to be placed on the need for action by society. This 'help for self-help' retained much of the idea of the individual's own responsibility and blame. Neither his own shortcomings nor the environment were regarded as the basic or marginal cause. 'Help for self-help' thus had a strong educational accent.

The idea of resocialization or rehabilitation was able to produce divergent practical results such as poor relief according to need on the one hand, to certain more 'insurance-like' devices on the other. Even if collective moral education was not completely excluded – as in the case of compulsory saving through public insurance schemes – the main emphasis had to be on the individual. This problem was stressed in 1912 during the discussion of the report on general pension insurance by the Committee for Old-Age Insurance. The inadequacy of existing assistance and its humiliating nature was emphasized. Better security was not only marked as important; it was declared an earned right, a facility which every citizen could claim, even if only on a modest scale: "For example, it does not satisfy today's sense of justice that a man who has worked all his life and contributed towards improving society should have no alternative, when he no longer is able to work, but to turn to public assistance or accept charity from relatives . . . rather, even the most humble work of use to society must be regarded as entitling the worker to support in a form which does not humiliate him".

The Committe's statement on matters of principle was not limited to its strict terms of reference. The point was that all branches of social insurance (covering "illness, accidents, old age, involuntary unemployment or other unprovoked causes") should have the form of a general national insurance. This all-embracing social view was asserted, against the criticism from advocates of the existing system of poor relief, to imply a legal claim in contrast to the humiliating alms handed out by the poor relief.

Critics pointed out that society should not and could not fully achieve even basic economic security for all by taking more general measures. This was not acceptable from the standpoint of moral education, or else it was economically impossible. Furthermore, if neither of these objections were regarded as tenable, it was technically impracticable.

At the same time, this policy implied that rehabilitation needs would become numerically widespread and qualitatively deep-reaching. Even if the methods could be made less humiliating there was still the risk of some kind of segregation – an interaction between public contempt for the poor and self-contempt among the needy. The policy could create a situation where the very possiblility of rehabilitation was obstructed because the need thereof itself could act as a guiding factor in a cumulative downward process and become a 'help for self-destruction' instead of a 'help for self-help'. These risks were amplified when the 'help' became compulsory and involved police action. These compulsory elements, particularly evident in child and temperance welfare, in turn influenced attitudes towards non-compulsory rehabilitation. If it did not go well, police action was lurking as a threat in the background. It is obvious that there were tremendous difficulties for the advocates of rehabilitation in retaining their position in the face of criticism of this kind.

6.1.4 The Integration Philosophy

The concept of integration, which over a long period from the end of the 19th century became – and remained – the strongest of the guiding values, gradually prevailed. To some extent it can be regarded as merely a way of providing an extra argument in the form of a more 'all-embracing' aim for the concepts of solidarity, equality and social security.

The preconditions for the success of the integration concept were good. The special environment in which Swedish welfare and social policy has developed can be regarded as integration-oriented and even integrated.

Within the labour movement, the concept of integration was felt to be bourgeois or middle-class right up to the early twentieth century. The 'liberal' efforts at reform seemed to emanate from such a view which, in point of fact, they did. The most important thing was to relieve the worst destitution and allay the greatest discontent by providing a certain basic security. The general view of reality was that there was obvious need among large groups of the population. This condition produced a smouldering 'anti-social' discontent to which new and 'dangerous' socialistic theories had begun to appeal.

The social democrats' criticism against the concepts of integration arose from the demand for more radical reforms or a more general social transformation. However, as social democracy gradually became a clearly reformist party which wanted to transform and win society 'from the inside' the party came to accept the concept of integration, which was then understood in a more advanced and sophisticated way. The concept, as interpreted by the social democrats, implied the gradual removal of the cause of every justifiable source of social discontent through far-reaching reforms. In this way, integration would be achieved through 'transformation of society'. In the slightly longer view, integration was to be introduced into a changed and different society. At the same time, the prospects of major changes and improvements made it easier to gain support for successive reforms (integration into the already existing through hope for improvement).

The concept of integration appeared in both a defensive and offensive form. These two lines coincided in an official value premise from which certain common goals could be derived: the same reform could be regarded by the defensive side as a defence against excessive change, by the offensive as a catalyst for a much more radical reform policy.

Such a clear combination of the two interpretations of integration can largely be said to have existed in the thirties when it was primarily the population issue which became the uniting link. Radical demands for social reform, not *per se* favoured by many conservatives, were able to gain some support through the view that a growing population was essential 'to preserve the Swedish culture' and similar traditionally conservative postulates. At the same time the fear of Nazism had become one of the driving forces in the awareness that social improvements were needed. The new 'social liberalism' which developed saw such improvements largely as part of the preparedness against the danger of ideological infection from the south.

How the new premise developed as a combination of or compromise between contrasting values was very clearly illustrated in statements made by the Minister for Social Affairs, Gustav Möller. In reply to a motion raised at the social democratic party congress in 1936, Möller frankly declared: "I must say that I will not hesitate to frighten no matter how many conservatives, farmers' unionists and members of the liberal party with the threat that our people will otherwise die out, if with this threat I can get them to vote for social proposals I put forward. This is my simple view of the population issue and it is good enough for me".

For social democracy, or at any rate for Gustav Möller, the population issue therefore seemed to be of particular interest as a driving force for social reforms. From the point of view of social policy, this was an

offensive attitude. Those who stressed the population issue, and accepted for its sake social reforms which they would otherwise have opposed, adopted a defensive attitude.

According to an older, static idea in economics, socio-political measures always involved a sacrifice by society, a cost which could never be paid back. Resources which were used by the more wealthy for saving and the development of industry and commerce were transferred to the poor, who spent these resources entirely on consumption. Moreover, in many cases they remained sick and unemployed as a result of the assistance given them, or became generally unuseful to a greater extent then they would have been without that assistance. This line of reasoning was nurtured by the neo-classical economic theory. State expenditure was wasteful and should be kept low and balanced. These requirements were particularly important when business recessions increased the need for political measures because of the increased unemployment and mass poverty which followed in their train.

This economic conception was superseded by a dynamic view through the work of the Stockholm School of economists and of Keynes. Social and welfare policy could now advance to the status of a suitable instrument in economic policy which was both effective and attractive from the humanitarian standpoint. Socio-political measures therefore became regarded as economically justified and wise. A resistance based on vested interests could no longer be supported by 'cold economic facts'. This fundamental change in the prerequisites for value-positions in social matters had a tremendous effect. Integration, implying both incorporation in society and transformation of society, could be compatible with and, indeed, an aid to economic growth.

The idea that society should be transformed through a policy of integration provided the welfare policy with greater, albeit different, tasks. At the same time, the relative importance of social policy *per se* was diminished. Increasing importance was attached to employment, agricultural, housing and educational policies.

The dilemma for policies based upon the integration concept concerned the balance between change and caution. A 'welfare conservatism' where the majority felt its interests protected, could exert braking action on reform policy or on its consistent concentration on greater satisfaction of an already integrated large majority.

6.1.5 Solidarity and Equality

The concept of solidarity and equality may be said to have played an important rôle as a supplement to the concept of integration.

Solidarity, when based on altruism and the sense of responsibility towards one's fellow men, implied in its political form a demand for a common responsibility for all citizens, a responsibility which was regarded as applicable both to causes and consequences. It was the fault of society that there were social evils and it was the duty of society to remedy those evils. Solidarity should primarily concern the weak and poor. This concept was obviously related to the fact that it was the lower income groups or those speaking on their behalf who demanded solidarity from other groups.

The concept of equality is more advanced than that of solidarity. It is also vaguer. In practice, however, it has not been so greatly divorced from the concept of solidarity, but has been primarily an expression of the more limited ambition to reduce the inequalities which, at various times, have been regarded as 'too great'. This ambition, however, has seldom led to an attempt to specify the inequalities which, in relation to various other established social values or aims (economic growth, structural change, social security, 'fair' wage in relation to achievement, etc.) have been relevant or irrelevant.

According to the solidarity and equality model, what was envisaged was in most cases a fairly straightforward vertical transfer from 'rich' to 'poor'. When for mostly technical reasons the result became a generalization of the welfare policy, this vertical transfer remained as a basic aim from the solidarity perspective. The expansion of the concept from a selective aim of this kind to a more general goal was, however, embraced in the solidarity concept as soon as the tasks of a welfare policy were viewed in a somewhat longer perspective than the assistance provided to certain groups who were faced with difficulties in the prevailing situation. The well-to-do of today could well become the poor and needy of tomorrow as a result of sickness, unemployment or other causes. The concept of national insurance developed in a certain sense from the concept of solidarity although it had several roots, not least in the concept of security. It was not only necessary to protect those who were burdened, but also those who might become so through no fault of their own, something which might happen to anyone. Solidarity thus called upon society to act as a kind of gigantic insurance establishment covering all citizens. When given a more specific form, it naturally led to the concept of social security.

The creation of a sort of minimum level of social security was regarded as a goal as early as in the 1800's, when the first political efforts to introduce social insurance were made. The view of reality behind these lines of thought was that the earlier kind of security had become lost in the new industrial society so that new security arrangements were needed

as a substitute. The contemporary debate was largely concerned with the particularly difficult and insecure position of the industrial workers. It was therefore necessary for the state to provide them with insurance for their old age and for their survivors, to legislate on accident insurance and industrial safety, to formulate policies to prevent unemployment and to solve the question of housing, "which more than anything else affects the whole economy of the working family".

These conceptions of the industrial workers as the most 'needy' proved upon closer examination to be far from tenable. Within the agricultural community there were still large groups of farm-workers or smallholders with small incomes. What happened around the turn of the century was that in discovering the new problem of the position of the industrial workers an old problem was rediscovered – that of the social situation of the agricultural population without property or with very small holdings. These people had very little of the social security which had long been under debate. The first discovery led to the demand for workers' insurance. The latter led to the realization that such insurance devices would not suffice and that, in any case, social policy on old age insurance had to be made more general with regard to the extent of the groups covered, in other words, that the security policy must apply to everyone.

6.1.6 The Security Concept

Thus far the security objective coincided with the solidarity goal in the more advanced state described above, as a result of joint readjustment in consequence of a changed understanding of reality. The security objective, however, developed also along its own lines. This development took two forms. The first, once agreement had been reached concerning general social reforms implied in the concept of solidarity, existed right from the very beginning. Security was to cover special conditions over which people, by and large, had no control. In other words, it was to provide insurance against special risks to which people were exposed: the risk of becoming too old to support oneself, of becoming ill, unemployed or an invalid. The second form did not appear untill the 1950's as a result of the health insurance reform and later the introduction of the general supplementary pension scheme (ATP), which provided income security, or compensation for loss of income. This had the effect of levelling out the risks within the respective income groups and for the individual wage-earner.

The objective which was derived from this latter security concept was equality for different groups in the construction of security instrument. This was an equality which implied that differences of income between a

certain minimum (general basic security) and a certain maximum would be retained when risks became manifest. Because of the increasing importance of the general supplementary pension scheme (ATP) in the socio-political system, this new, income-related concept of security came to occupy an important position in the arsenal of values and goals behind Swedish welfare policy and for its technical structure and its effects on distribution.

The highly abstract concept of equality, the 'sacrificial' nature of solidarity in the eyes of many, the deviations of the 'clientele' of rehabilitation and resocialization can all be assumed to have made these concepts less tangible and less urgent than social security. From the initial breakthrough of social policy right up until the more recent major welfare reforms, the need for social security was felt at various levels to be very great in a society undergoing continuous change; first in the light of the widespread insecurity of the poor and later, for growing groups in the face of the risk of losing previously gained positions of prosperity or at least a 'tolerable' standard.

The concept of security did not arouse as much controversy as those of equality, solidarity and rehabilitation. It therefore became the most stable concept from the political point of view and that which most easily and with the least risk gave strength to the political parties and mobilized the voters.

6.2 Welfare and Population Policy.

Thinking in welfare terms and welfare policy, as made evident above, has a relatively long historical tradition in Sweden. The ambition has been to improve general welfare and at the same time to provide a fair distribution of increasing welfare among the entire population.

Increases in social capital, the introduction of new products and production processes, such as the mechanization of agriculture and the development of new methods of transportation and communication, relocations of economic activity etc, involve changes which are regarded as welfare benefits by some groups of the population and as losses by others. An important task, therefore, is to follow the development of welfare continuously for various population groups and to develop methods which can provide a basis for assessing the consequences of different situations in terms of welfare policy requirements.

In the Pictures of future Ages, it is assumed that the pattern of values described above will continue to exist and develop. The discussion of population policy is therefore conducted with this view of welfare as a yardstick.

7 Dilemmas of Forecasting. Alternative Futures

7.1 Statistical Predictions vs. Postulated Population Development

As was evident from the preceding historical chapters, population forecasts have long been a subject of interest in Sweden. The lack of factual information for the period before the first census in the mid-18th century obviously meant that estimates of the future population total were very inaccurate. To begin with there were no time series data which even made it difficult to decide whether the population was decreasing or growing. However, it was possible eventually through studies of the age distribution of the population, among other things, to make estimates of the birth surplus and, consequently, population growth. The projection indicated a doubling of the country's population within about a hundred years (Wargentin 1754–55). Methods and information bases have improved in the course of time but genuine uncertainties about future population development remain, also in present-day forecasting.

The possibility of making accurate predictions about population development in the long term, 25–50 or perhaps even 100 years, is still greatly limited. With steady, undramatic development the standard methods of forecasting function quite satisfactorily with only small variations between the prediction and actual population. If, however, the trend in development changes for any reason the prediction goes 'haywire'. In principle, errors of any magnitude can be made if the period under review is long enough.

In this respect we are no better equipped now than we were forty years ago when the 1935 Commission on Population reports were prepared:

"According to the previous report it is almost certain that, in the very near future, the population of Sweden must begin to decline . . . The possibility that within the foreseeable future the birth rate being high enough to enable the population to gradually increase again is so remote that no allowance need be made for it in an investigation conducted for practical purposes."

The quotation illustrates quite clearly the dilemma of forecasting. For a number of decades fertility had been decreasing. The slight increase which took place immediately after the mid-1930's was dismissed as merely a chance variation from the general downward trend. 40 years

later we know that this was wrong. It may perhaps be said that the demographers and statisticians were unlucky during the 1930's in the sense that the change in the fertility trend was, so to speak, waiting 'round the corner' and the they did not dare believe that the emerging tendencies were the beginning of something new. The reasons for such breaks in the trend are today just as indefinable as then. One contemporary advantage is that we can now build on a much wider experience. We have observed that rapid changes in marriage rate, for instance, and birth rates can occur. We would therefore be less inclined to make such strong statements as the quoted above.

Of the other two factors normally taken into consideration in population predictions, mortality and migration, the following can be said: mortality has generally been regarded as the factor easiest to forecast since it has so far shown quite a steady downward trend. However, it is perhaps somewhat surprising to note that this downward trend has not always been taken into the calculations. Instead it has often been assumed that the death rate was constant. With a death rate that is slowly decreasing, no effect will be seen for many years to come but for longer term forecasts (25 to 30 years) a not insignificant variation can be obtained if this assumption is adopted. In recent years, however, it has been more usual to allow for a decline in the death rate.

In the mid-1930's there was no great surplus migration; not until 1930 was there a positive net migration between Sweden and other countries. Throughout the 1930's net migration was quite insignificant. When making predictions at that time, the demographers were obviously quite clear about the fact the immigration could increase, but that emigration would be inconsiderable now that America's frontiers were largely closed.

"In the future, we should not expect any appreciable emigration, particularly on account of the drop in the number of people in their twenties. Another obstruction is the barriers introduced in several countries abroad against immigration.

The rate and extent of immigration is more difficult to predict, and it is not improbable that it may rise slightly. On the other hand, immigration is a phenomenon which can be regulated to some extent by legislation."

Despite these wise and far-sighted words no assumptions about migration were built into the population predictions. Instead, it was supposed that immigration and emigration would balance perfectly. Only after 1960 was quantitative consideration given to external migration. We had then had a positive net migration for 30 years.

In population predictions for smaller areas migration and mobility

plays a decisive rôle and often constitutes the dominant element of uncertainty in forecasting.

The criticism levelled against traditional population projections has taken as its starting point projections used as instruments for forecasting actual development. The examples indicate that the variations may be wide, particularly in the long term. The fundamental uncertainties, particularly with regard to the development of fertility and migration, can never be completely eliminated. Statements on future population development can, however, serve purposes other than to provide the most likely picture of future trends. The main interest of this study has been focused on the relationship of population development to society as a whole, on the consequences and problems generated by population development and, finally, on an analysis of how these problem areas may be related to a population policy. It is therefore reasonable to consider future assessments from a slightly different perspective than that provided in traditional forecasts.

Instead of *deriving* a predicted population development from historical and contemporary conditions we *postulate* a number of population developments on the basis of alternative *assumptions* about fertility, mortality and migration.

"Forecasting is bound to be limited to the study of historical and statistical regularities which, applied to the observation of contemporary conditions in a given society, yield *probalities,* i e the formulation of future events which are more likely to occur than others, depending on conditional factors. In making such probability forecasts, the possibility that other conceivable or inconceivable events will occur can never be excluded. Consequently, the indication of probable future conditions and events also does not include the measure of probability, since any disregarded, unknown or unpredictable factor may have at least an equal chance of emerging as some very obvious trends now seem to have."*

In traditional forecasts the description of causes can be seen as a chain of arguments:**

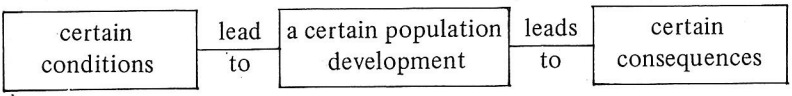


Fig. 7.1

* Working Paper (1972), Plan Europe 2000. European Cultural Foundation, Amsterdam.

** Conditions refer to the development of other social areas. Consequences refer to the effect of population development on society and the individual. There is, of course, also a time dimension in this mode of thinking which means that present consequences will be future conditions, etc.

This simplified causal description is indeed based on an explicit or implicit likelihood judgement of a much larger number of conceivable relationships where uncertainties about cause and effect can be described schematically:

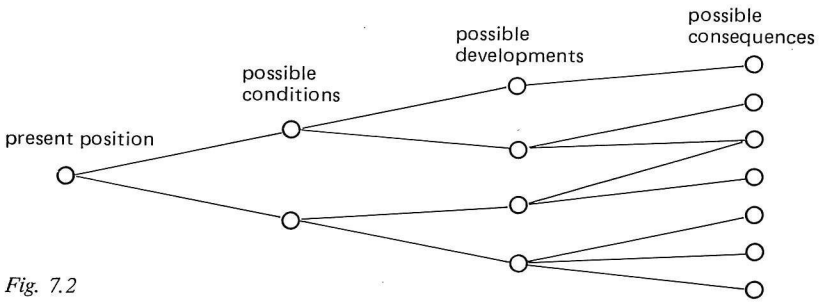


Fig. 7.2

The large number of feasible alternative developments obviously means that an almost complete coverage of these would be unmanageable and confusing. Therefore some pre-selection of conceivable alternatives must be made. However, the criteria used to limit the number of possible futures are in this study not based primarily on probability arguments. Instead the following reasoning has been used as a basis for selecting among possible population developments:

1. Which development processes, i e which assumptions concerning fertility, mortality and migration, are *a priori* reasonable? If anything it is here a question of finding limits of what is reasonable (although perhaps improbable). These limits may be conditioned by biological factors, e g with regard to mortality rates. They may also be supported by historical experience, e g the change in fertility level by demographic transition or informed guesses such as "an appreciable emigration of Swedes is not reasonable". From the quotation (p. 120) it is evident that it is not always easy to draw the line between the reasonable and unreasonable. It is a question of judgement that must be done.
2. What development processes have interesting consequences? These should be interpreted primarily as consequences causing problems for individuals and society from the welfare point of view adopted earlier. The consequences should also be politically possible to influence in order to be of interest in the analysis.
3. What are the likely conditions in the society for the population development? The broad assessment of social development as a whole, as it is indicated in this study, is based chiefly on other studies of the

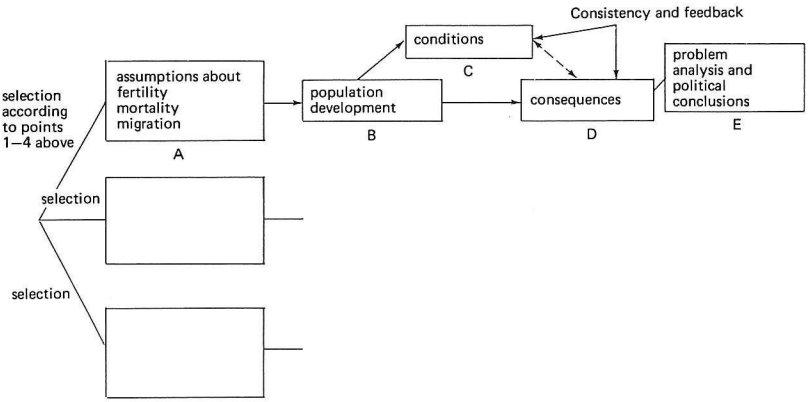


Fig. 7.3

future. Here too the possibility of influencing conditions through political processes is taken into consideration.

4. The selection of postulated developments should be widely seperated in terms of interesting consequences. Furthermore, priority is given to developments which isolate and accentuate problems rather than the reverse. The ambition is thereby to give as broad a description as possible of future development alternatives.

The historical pictures presented in earlier sections have, in principle, also been selected in accordance with the above reasoning. Point 1 is obviously met in a trivial way by the historical perspective. However, an idea of what are reasonable limits can be obtained by following through the historical developments such as the high fertility and mortality during the 18th century; the extremely low fertility in the 1930's and the high immigration rate at the end of the 1960's. Point 2 is an essential criterion both in the historical and future-oriented Pictures of the Ages. Point 4 is stressed by allowing the analysis to extend over a very long period (from the 1750's until the present time). We thereby have a broad illustration of various population-policy situations. In point 3 the attempt to interpret causal relationships in historical material goes perhaps a little beyond what is normal in traditional historical writing.

The arrangement of the Pictures of future Ages may be summarized in the steps A, B, C, D, E as illustrated in Figure 7.3.

7.2 Time Dimension

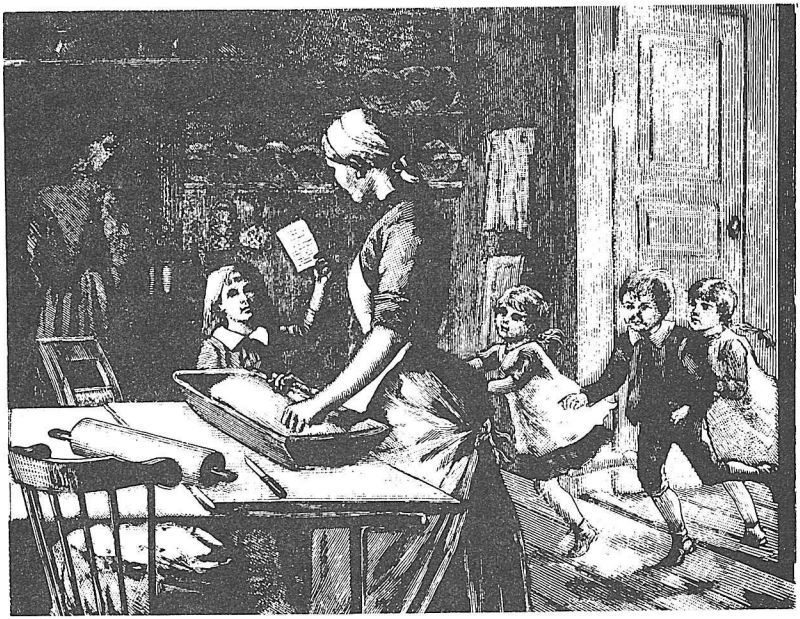
The descriptions given in the Pictures, future as well as historical, must not be interpreted as momentary portraits of different population

situations. Problems and conflicts are seldom the result of a given condition but rather a consequence of changing conditions. This applies to a great extent to population development. The dynamics of population, with the growing up of generations, childbirth and ageing, gives the process an intrinsic inertia, which is also reflected in the way the population structure reacts to changes in various parts of the system. The consequences may occur after considerable delay, but often in a way which can be foreseen long in advance.

It is, therefore, obvious that an analysis of population development, with its relationships to social development and politics, must be long-term, extending at least over one generation of 25–39 years. The ambition of wanting to embrace, in a long-term perspective, the conditions and consequences with causes and effects chronologically widely separated from each other must be set against the uncertainty associated with making statements about an increasingly distant future. This trade-off cannot be achieved once and for all. An exact time horizon has, therefore, not been put on future patterns either. If anything, it should be seen in relation to the particular consequences which are discussed in each individual case.

In the assumptions about fertility, etc, it is assumed that these factors remain constant over a long period. One exception is the 'neo-fertility' where the aim is specifically to study a transitional process involving short, sharp upswings in fertility. The basic problems associated with fluctuations in population size are discussed in greater detail in this section. To keep population assumptions constant implies some sort of idealization conditioned by practical considerations. However, this simplification should not have any appreciable effect on the validity of the problem analysis. This is primarily due to the fact that many important effects are cumulative and not directly dependent on whether the previous history is constant or fluctuating. The successive variation in age distribution and size of population may be mentioned as examples. Other problems are generated, particularly by the rate of the changes, for example, with regard to the regional distribution of population and residential mobility.

To summarize, it can be started that inertia and time-lags between causes and effects are very evident factors of population development. It is the fundamental reason why such long-term studies are necessary. The uncertainties of long-term population predictions make it more meaningful to work on alternative futures where the aim in selection is to explain and illustrate questions concerned with population policy rather than to make probability assessments. Such alternative future Pictures of Ages are presented in the following sections.



8 Work Organization Reorganized

(Picture of Age D)

The Picture of Age D describes a 'post-industrial' society in which the service sectors dominate. The population is no longer growing. The age structure is undergoing great change. Knowledge of reproduction and contraception is widespread and almost all prospective parents can decide the age at which they will have children and how many they will have. Families remain small; both parents are in gainful employment outside the home; work in the home is limited.

To an increasing extent, fertility can only be influenced through the modification of values. The family economy and provision for old age are no longer binding conditions for having children; people have children in order to give and receive affection. Changes in mortality are connected less with medical progress and more with living conditions and life styles.

The proportion of old people and those in need of care is increasing. Particular attention is given to socially organized child care. Large numbers of women seek work outside the home. The shift in the age

structure, greater participation in economic activity outside home by women and the growth of the service sector result in great changes in the organization of working life. Both men and women desire part-time jobs and flexible working-hours. The age of retirement is becoming fluid. New kinds of conflicts are arising between different personal objectives; family unity, social stability and involvement in local activities necessitate residential stability, while professional careers and labour market adaptation require mobility.

The integration of children and old people in the activities of the community is an unsolved problem. New political institutions must be created to safeguard the interests of those groups that lack political resources.

8.1 Some Demographic Assumptions

This Picture is characterized by a movement towards a stationary population and stabilization of the size of the population at approximately the present level. The following assumptions have been made:

a) Fertility remains at a constantly low level with a net reproduction rate of just under one, equivalent in absolute terms to approximately 110,000 births per year.
b) Mortality does not change significantly with an average expectation of life a birth of 72 years for men and 77 years for women.
   As an alternative assumption, reductions in mortality by elimination of some causes of death (certain illnesses and accidents) is discussed.
c) In this Picture, immigration is assumed to be small and the net effect of movements across the frontiers of Sweden is assumed to be insignificant.

The population trend derived from these assumptions has certain characteristic features. The low birth rate, equivalent to an average of 2.2[1] children per family, and insignificant immigration mean that the population of Sweden ceases to grow. Within 20 years the upper limit of about 8.3 million inhabitants, will have been reached. The age distribution will change rapidly at first but in the long run (after about 50 years) it will stabilize if the birth and death rates remain constant.

The combination of low fertility and insignificant mortality in lower age groups gives rise to a population pyramid with a large proportion of old people. The population between 15 and 65 years of age, normally referred to as the productive component, is relatively independent of the fact that the population is either growing, constant or declining. On the other hand the relationship between the numbers of children and old

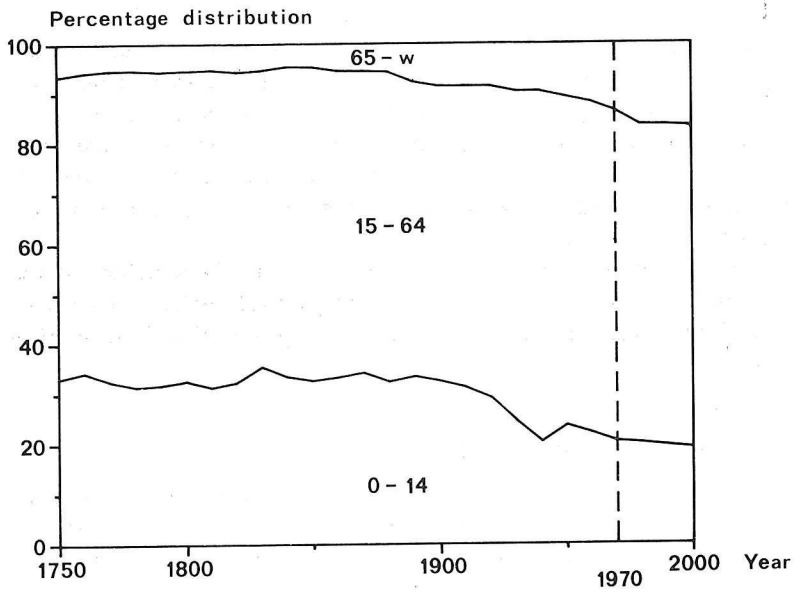


Fig. 8.1 Proportion of the population in the ages 0–14, 15–64 and 65–w.
Year 1750–1970 (actual)
Year 1970–2000 (estimated)

people does change. In 1850 one Swede in twenty was more than 65 years of age. A hundred years later the ratio is one in ten. If this trend continues every fifth Swede will be 65 or more before much of the next century has elapsed.

In earlier periods the decline in mortality was largely confined to the younger age groups and therefore led to the population becoming younger. A reduction of mortality in higher ages has the opposite effect and accelerates the ageing of the population.

8.2 Conditions Affecting Population Development

8.2.1 Fertility

The social norms as to 'ideal' family size have changed. The tendency has been towards smaller families. Instead of fairly small numbers of married women with large numbers of children, most young women nowadays have children but their fertility manifests itself early and is

low. Half of all women stop having children after the second child.

A possible condition for a continuing low fertility is that this pattern of smaller families becomes permanent. However, the changes of attitude towards marriage during the late 1960's indicate that other forms of cohabitation, with other childbearing distributions over different groups of women, may become significant in the future.

Child bearing will first of all be a reflection of *values* concerning sex rôles, family and children. It is difficult to make a scientific analysis of such values and their causes. Many factors are genuinely uncertain. However, we can obtain some idea of the effect of changing values by studying the attitudes towards family planning among different generations. The discussion here is based partly on an ethnological interview survey of about 100 women in different age groups.[2]

Knowledge of sexual matters. Knowledge of reproduction and contraceptive methods has steadily improved. This is especially true among the younger generation. Most young mothers state that their children were planned. It is probably reasonable to talk of family size as a matter of family planning. Apart from a number of cases that are marginal from the demographic point of view, the level of an individual's knowledge does not constitute a barrier to the conscious planning of the family's size. Attitudes rather than knowledge are the decisive factors.

Social communication, primarily between parents and children, will also in future play an important part in passing on knowledge about sexual life and contraception, even though the education system and mass media have assumed some of these tasks. The organization of the parents' activities inside and outside the family and their opportunities for contact with their children are important factors in determining how well this informal transfer of information will operate.

Another condition for effective family planning is the change in values regarding the sharing of responsibility between the man and the woman. Many women, particularly young women, find the strong support of the man important. Responsibility for family planning and for looking after the family is shared.

Female education. More and more women are receiving some form of further education and the level of the education or training is rising. This situation will be a permanent feature of future society. The development of basic values stressing the equality of men and women will be a precondition for this trend. The conditions controlling women's opportunities to study have changed in recent generations. Broadly speaking, the earlier emphasis placed upon economic conditions, traditional values and regard for the career of the man, have given way to the problem of arranging for the children to be looked after.[3]

A higher level of education or training naturally leads to greater career aspirations among women. High career activity is generally associated with a low birth rate.[4] Changes in the organization of working life and the relationship between working at home and engaging in gainful employment, i e changed working hours, etc, will decide the extent to which these opportunities for women to work will be realized in the future.

Income and cost of children. The relationship between income and the number of children has been the subject of many empirical and theoretical analyses, but it does not seem as though any simple connection can be shown, even for different income groups at the same time and in the same social environment. It is therefore hardly possible to express an opinion on how a change in income would affect the size of families in the future.

The picture is somewhat clearer where the cost of children is concerned. The relative cost of having children is increasing. This can be seen partly as a consequence of the ever-increasing productivity of the consumer goods sector as against the service sector (including child care). Increased differentiation of consumption pattern gives a larger number of choices in the use of time and money that can influence attitudes towards family planning in favour of fewer children. Clearly certain economic and time-use conditions may become binding. The need to look after the children is today felt as a definite restriction by many wage-earning parents. In a longer time perspective the question of division of activity and the organization of working life will become important. These conditions of life can, to a certain extent, be influenced by political decisions. Constraints can be overcome by provision of day nurseries and health care, for example, or by organizational changes such as co-ordination of working hours, opening hours for service availability, transport time-tables and the disposable time of the households.

The importance of economic conditions for family planning depends largely on the individual's ideas and aspirations concerning these conditions. Questions of social security and future provision enter into the picture. The fact that society is increasingly taking over these functions is certainly a contributory factor to changed ideas of family size. It may be possible to predict that, in the society of the future, the aim of family size and child bearing will have been changed from that of having heirs and providers to that of having someone to love. In terms of the human needs expressed as 'having', 'loving' and 'being', the children have been transferred from 'having' to 'loving'. Thus the number of children born in the future will depend less on the conditions of life than in the past when the aim in having children was partly to secure the economic

future.

Sex determination. Linked to the idea of an 'ideal' family size is the sex of children. In many cultures sons are more highly valued than daughters. Preferences of the type: 'at least one boy', 'at least one of each sex', etc, also occur.[5]

Research into the possibility of determining the sex of an unborn child has reached a stage at which it is not unlikely that it will soon become medically (and also practically and economically) possible to determine in advance the sex of a child at the time of conception. This opportunity for sex planning would have drastic consequences on the development of the population. There are obvious risks of imbalance between the sexes.[6] Even if it were to level out in the long term, temporary displacements in various age groups would be a sufficiently serious problem to merit political attention. Another important effect is that the number of children would probably decrease. A couple with two daughters who plan to get a third child in the hope of having a son would, if sex planning were possible, have been satisfied with two children, one girl and one boy.

Example 1. The expected number of children, assuming that parents hope to have at least one child of each sex, is statistically three. Sex planning would reduce this to two, i.e. the number of children would drop by one third on average.

The example shows that the effects on birth rates might be significant if preferences can be realized as a result of sex determination becoming available.

Interval between children. In earlier days the major part of the fertile period of a woman's life was used for childbearing. With few children only a small proportion of the woman's potential childbearing years are used.[7] There are therefore considerable opportunities for variation in the spacing of births. This is a factor which affects the length of generations and therefore the development of the population in general. In the short term such variations can give rise to large fluctuations in the annual birth rate. It should also be pointed out that an increase in the number of adoptions may result in an even looser relationship between the age of the mother and having children.

It can be inferred from the survey material[8] that a possibly developing trend may lead to a situation where childbearing will be taking place at a later age. It is becoming less usual to have children while studying. Instead, births are postponed until the time of entry into the labour market. An important factor here will be benefits connected with the birth of a child.

Example 2. In a society with a stationary population let us assume

that every woman bears a female child at the age of 25. The average expectation of life at birth is 75 years. If the childbearing pattern is shifted so that the women have their children at the age of 20, this will lead to an average relative increase in the population of 25 %.

Exampel 3. Let us assume that each woman bears two children, one at the age of 25 and another at the age of 30. If one particular age group departs from this pattern and instead has the first child at the age of 24 years, the birth rates that year will increase 50 % and there will be a sudden baby boom. This will extend through the age groups and give rise to new fluctuations in the birth rate later on.

These simplified examples illustrate that the timing of births and the interval between them is important both in the short and long term for the development of the population. These factors are of increasing relative importance and also more difficult to predict the smaller the number of children that are born.

Summing up. The number of children is chiefly determined by social values. There are no indications that the present ideal of two or three children is changing.

The possibility of determining the sex of children in advance may result in a reduction in the number of children and may also cause uneven distribution of the sexes. Increased education and career activity among women strengthens the tendency to have fewer children.

Individual knowledge and the economic conditions of life will be of marginal importance. The time at which people have children is an important factor in determining the development of the population. Changes in the conditions of life: educational system, benefits, arrangements for taking care of children, etc., can probably have a direct influence on this timing.

8.2.2 Mortality

Mortality patterns have changed greatly in the last 100 years. Infectious diseases have declined sharply and infant mortality has been reduced to a very low level.

The cause of this change in the mortality profile can be found, above all, in improvements in diet, hygiene, sanitation, social environment and living conditions. The part played by medical advances is hard to assess as a whole but the importance of mass vaccination, antiseptics and antibiotics should be obvious.

The trend towards a greater life expectancy now appears to have come to an end. Although medical and environmental improvements may

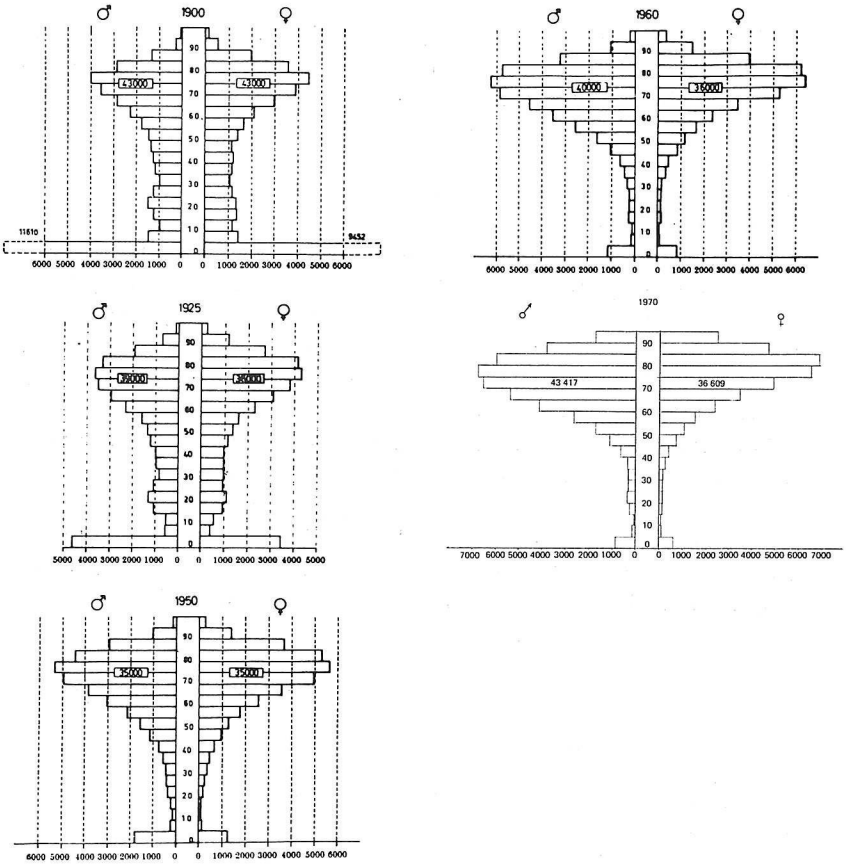


Fig. 8.2 Profiles of deaths in Sweden för selected years by sex and five-year age groups.

benefit the individual their overall social impact seems to be limited unless dramatic breakthroughs occur. For women the improvement continues to some extent, and this leads to an increasing relative excess mortality for men.

Since the present mortality among the young is very low, a reduction in the higher age range would have the largest demographic effect. However, a reduction in mortality before the end of the fertile period affects reproduction and therefore the long run development of the population, whereas a reduction among the higher age groups only affects the size of the population in the short term.

It is unlikely that the mortality profile will move upwards, that is, that more people will live to an age of more than 100 years. This would require changes in the genetic code, changes which are impossible at present. A reasonable alternative to the assumption of unchanged mortality would therefore be to consider reductions in the rates above the age of 45 with the effect that more and more people would live to the age of about 80.

Example 4. A uniform 90 % reduction in mortality at all ages below 45 would increase the average life expectancy at birth by only half a year. This hypothetical 90 % reduction would probably require very large resources equivalent to eliminating the five major causes of death: diseases of the circulatory system, malignant tumours, accidents and diseases of the respiratory and digestive systems.

For ages above 45 the main measures of any significance would be to reduce the risk of death from tumours, diseases of the circulatory system and, to some extent, accidents.

Example 5. Assuming that cancer is eliminated as a cause of death, the age composition of the population (at the time when a stationary population has been reached) would be as shown in the table below:

			Total population (1000s)	Percentage of population		Mean life expectancy at birth
				0–14	65–	
A.	Unchanged mortality	men	7461	20.5	15.1	72.7
		women		19.2	18.8	77.9
B.	Cancer eliminated	men	7726	19.8	17.3	75.3
		women		18.6	20.9	80.9

From the point of view of society, economy and welfare, road and industrial accidents and accidents caused by abuse of alcohol etc. are extremely important. Although counteracting them would have small direct demographic effects in terms of total population increase or average life expectancy the consequences for society and individuals are clearly considerable.

The view is that medical breakthroughs such as the discovery of a vaccine are not likely to have any substantial effect on mortality possibly with the exception of the case of cancer. As regards the diseases of the circulatory system, traditional medicine or health screening are unlikely to be able to have any major effect.[9] More significant would be changes in life style, such as dietary habits, physical exercise, or environmental conditions which influence levels of stress. The external conditions of life clearly play an important part in this context.[10] Society can influence

the conditions of life in several different ways: by direct action through legislation and other measures related to working and housing conditions and transportation; by informing and influencing public opinion about dietary matters, physical activity and attitudes to tobacco and alcohol.

8.2.3 Immigration

Immigration has been greatly dependent on the economic climate. In the mid-1960's the net immigration was just over 20,000 persons per year on average, but fell sharply during the 1971–72 recession. During this period the net foreign migration was actually negative. The amount of future immigration depends on a number of national and international factors such as the employment situation in Sweden and abroad, the formation of economic and political blocs, international crises, etc, all factors which are impossible to foresee.

A possible reason for Sweden not being an immigration country in the future could be that the employment market no longer offers any capacity for importing foreign labour or that Sweden could no longer compete in the international labour market. Another important factor is the ideological climate. A widespread negative attitude toward foreigners could lead to a restrictive immigration policy. Given these various uncertainties, it is reasonable to consider a wide range of foreign migration alternatives. One of these is zero netmigration. This is the assumption we have chosen for the present picture.

8.3 The Development of Society.

8.3.1 General Background

An analysis of the consequences of population development must be linked to a broad assessment of the economic, social and technical development and, consequently, a number of further uncertain elements are introduced. Some assumptions about the future development of society will therefore be added to the demographic picture already arrived at.

The organization of the system of activity is changing constantly. There has been a gradual transition from activities carried out within the household to gainful employment. Housework (washing-up, laundry, childminding, care of old people, etc) today occupies about 1 to 2 thousand million hours per year whilst gainful employment occupies about 6 to 7 thousand million hours.[11] Furthermore, there is specialization in many fields of activity. Domestic arrangements involving large numbers of

people spending short periods of time are being replaced by commercial occupations that require small numbers of people spending long periods of time. This specialization has been linked to increased production efficiency. Fewer and fewer people have been employed in primary activities such as agriculture, forestry and fishing. The labour thus released has mainly gone into industry. The trend in the advanced industrial countries now indicates the beginning of a stagnation of the proportion of the labour force employed by industry. The additional work opportunities are coming from the service sector instead. The demand for service activities which are labour-intensive and therefore show a slower rise in productivity, contributes to a sharp increase in time inputs to the sector. This has been particularly true in the case of the public sector. There ever greater time resources are being demanded for tasks such as widening the social infrastructure, education, care of the sick, social care, information services, cultural facilities and so on.

This trend has led to an increased separation of the working and living environments and a concentration of the population into fewer and larger urban areas. Previously the movement was from sparsely populated rural areas to urban agglomerations. A continued decline in the rural areas can no longer result in any major population increase in the urban agglomerations. Instead, regional changes will be dominated by population movements between the places where people live and work. The development of transport and information techniques will play an important part in this.

These development trends can be summarized as follows:

1. A continued reduction in the proportion of persons working in agriculture, forestry and fishing. The numbers are already small in absolute terms.
2. A continued reduction of the population of sparsely populated areas. The changes are small in absolute terms.
3. A levelling off of employment in manufacturing industry.
4. Continued redistribution of the urban population in terms of migration between the urban areas.
5. An expansion of the service sector with possible predominance of social services.
6. A spatial organization expressed in a widening sphere of travel mobility as the transportation systems develop.

These trends can, to some extent, be seen as breaking with the development so far, a transition from the industrial society to the post-industrial society, from urban concentration to a dispersed urban network.

8.3.2 Energy and Natural Resources

Industrialization has been characterized by greater use of non-human energy and the use of less labour in the production of goods and services. The trend of prices can illustrate the advantages that were found to be obtainable from the use of labour-saving techniques:

(From the official statistics for the period 1965–71; 1965 = 100)

Fertilizers	106
Textiles	107
Chemicals	112
Paper	125
Grain	126
Fuel	128
Labour (industry)	170

Since many kinds of raw materials and energy are not reproducible, the shortage of raw materials and energy that is already beginning to be observed can result in considerable changes in the direction of production in a future society. One important factor in that change is technological development. Technical innovations, new methods of production with, for example, recycling techniques, need to be included if an assessment of the future is to be realistic. However, a more limited analysis of the production trend can be made if the present technological pattern is regarded as fixed. The interrelationships between different parts of the economy can be explored, an exercise which enables the dependence of different sectors upon raw materials and energy to be elucidated. It is found that, even if all indirect effects are taken into account, a limited number of sectors, chiefly in heavy industry, stand out as exceptionally heavy consumers:

Iron and steel manufacture
Products for heating, water supply and sanitation
Stone, clay, glass and ceramic products
Chemical products
Metallic packaging
Scrap products
Pulp and paper
Metal goods

Thus, a growing shortage must mean primarily that the relative importance of the production-process sectors will fall while, at the same time, a number of other products which have, directly and indirectly, a low raw material and energy content, acquire greater relative importance. These activities can be summarized as follows:

Banking and insurance
Cultural activity
Medical services and education

Post and telecommunications
Wholesale and retail trade
Real estate management
Agriculture, forestry and fisheries with ancillary services
Computer technology

The results can be given a quite interesting interpretation of a general nature. The shortage of raw materials would not mean a reversion to an industrial structure such as we had during the 1930's, 1940's or 1950's but, rather, a great need for continued structural change towards highly advanced forms of service, since the services that are included among the sectors using the least energy and raw materials also belong to those that grew most rapidly during the 1960's.

This consumption pattern has strong regional consequences. The sectors that use least energy and raw materials are those highly sensitive to distance from consumers and they must, therefore, be located in relatively compact regions. In other words, this means locational advantages for the metropolitan areas. Agriculture, forestry and fisheries, too, are activities which use comparatively little energy. Consequently, the rural areas should benefit from shortage of energy and raw materials. Industrial settlements and medium-sized regions with mainly heavy industry would be most severely threatened. The conclusion is that a growing shortage of raw materials and energy on the one hand will strengthen the advantage of increasing the consumption of more sophisticated services. This trend can also be interpreted as collective utilization of resources, and means that the most densely built-up areas will have an increasing locational advantage in a shortage situation. At the same time, the advantage of agricultural and forestry production, which favour the sparsely populated areas, will increase. The shortage of raw materials and energy thus guides the trend towards two quite distinct types of regions, metropolitan and rural.

For such a regional system to be able to provide satisfactory service for the *whole* population, 'decentralized concentration' is required, with relatively large urban areas within reach of the population in different parts of the country. The main provincial centres are strategically important in such a development.

8.4 Consequences and Welfare Problems

8.4.1 Employment

The proportion of the population of working age (measured as the proportion between 15 and 65 years of age, for example) is *relatively*

constant regardless of whether the population is decreasing, constant or increasing. However, the internal age distribution differs from one population type to another.

With the assumed birth and death rates, the relationship between productive and dependent population would be as follows (from the Table on page 134):

	Productive/ dependent	Average age of the working population
A Unchanged mortality	63.2/36.8	39.6
B Cancer eliminated	61.7/38.3	39.7

There would probably be a tendency for the number of people actively in employment at any one time to fluctuate considerably. Among the institutional changes which may contribute to such a development are changes in the educational system with increased facilities for re-education, the taking of sabbatical leave and a variable pension age. Consequently, employment and unemployment will become relative concepts, difficult to interpret.

The tendency towards increased female activity rates, which has begun to manifest itself, will play a strategic part in the future labour market. The expansion of education will temporarily reduce available labour but the young women with improved education will demand more qualified work than did former generations.

The demands for participation and pressure on society to create new work opportunities will also include other groups who find it difficult to compete on the labour market, e g disabled persons. To the extent to which the declining need for employment in a stagnating industrial sector cannot be compensated for by an expanding service sector, the discrepancy between demand and supply on the labour market is likely to become a serious problem for society.

The division between gainful employment and work in the home is to a certain extent arbitrary and may be subject to changes. Fewer wage earners in a local labour market often leads to high production at home and vice versa. Many activities must be performed either in the home or outside it. Some of these activities can be performed with fewer man-hours in bigger organizations without reducing the quality of the production, for example, education from nursery school to university. Other activities can be performed at home, e.g. preparation of food, care of children and maintenance, without the small scale being regarded as a drawback.

Partly contradictory tendencies are evident. On the one hand, reduction of working hours leads to increased time being available for work at home. The growth of recreational activities is a clear indication. On the other hand, an increased amount of wage-earning work for women means diminishing production in the home. A part of this production normally carried out in the home has already been transferred to industry and to the public sector. The care of old people, the sick and children are examples.

Among employed persons there are primarily two groups which can be expected to work parallel with home production. One of these are the part-time workers. 65 % of all part-time workers in 1970 consisted of married women in the 25–64 age bracket, of which nearly half had children at home. One of the main reasons why many women do not work full time is the need to look after their own children. The other group consists of 'part-year' workers. These workers include housewives who have returned to the labour market and women who have left permanent paid employment in order to look after children.

Because of changed economic conditions, such as child benefits and tax legislation, the part-time and part-year worker group can in the future be expected to include men to an increasing extent.

The demands for labour in industrial branches and in regions is shifting constantly because of changes in technology, consumer demand and foreign competition. This structural transformation affects the proportions between employment in different sectors of the economy. As the production of goods becomes more and more capital intensive, better trained and skilled labour is required. The individual has difficulty in choosing the appropriate training and experience since he has no control over the future production pattern. He therefore finds it difficult to judge which type of labour will be needed. Consequently there is a difficult problem of adapting the 'square people' to the 'round jobs' which have developed more or less independently of each other. Against this background the expansion of the service sector can be used as an attempt to make more prudent use of human resources. Career counselling, the provision of jobs, retraining, social care and care of the sick are all areas in which efforts are being made to increase the usefulness of human resources to both the individual and the community.

The relatively large proportion of old people and a non-growing population will aggravate these problems of adjustment. The arguments[1 2] can be summarized as follows:

An increase in the total demand will differ in composition depending on whether it is primarily caused by population increase or by increases in individual demand. In the former case a uniform increase of consump-

tion of different products can be expected (provided that the distribution of income is not affected significantly by the population increase itself). A rise in income in a stationary or declining population has a less uniform effect on demand. The risks of changing tastes in goods are therefore greater in a stationary or declining population. So also is the risk that production will have to be reorganized, with possible redundancies of capital and labour.

The importance of age for adaptation to the labour market is very noticeable today. Although technology is reducing the need for physical performance, increasingly strict demands are being made on knowledge, adaptability and mobility. This clearly favours younger persons. However, it must be remembered that these demands are becoming stricter on today's labour market because of the relatively large number of well-educated young people available. In this way the education and skills of the older generation cease to be adequate, relatively speaking, when they wish to return to work. In a future with a different proportion of young and old people this competitive situation could change.

The importance of the demographic changes in population size and age distribution should not be over-rated. These effects probably play a small part compared with changes in work organization: for example, when people take and leave paid work and, by no means least, how the participation of women in working life will develop in future.

8.4.2 Mobility

The aspects discussed in the previous section conceal important regional problems. Organizational changes and geographical relocations require people to be residentially mobile. These mobility problems are further stressed by the growth of the 'service society'. An increasing proportion of the time used by the population for consumption and production will be controlled by and within the service sector. To move goods between different places and population groups is fairly simple. On the other hand, the fact that production, distribution and consumption of services take place simultaneously at one place imposes heavy demands on the travel mobility of consumers and/or producers.

Education, vocational training and employment as in the course of a career often necessitates geographical mobility. This works against the development of a stable social contact network. Because of the strong local place-orientation of such contacts a certain stability in the residential pattern is needed. This conflict between mobility and stability becomes particularly noticeable for husbands and wives who could have

careers drawing them to different places.

Because of the car the majority of the population has been able to increase its travel mobility greatly over the last few decades. Change of workplace no longer necessarily requires a change of domicile. It will however probably no longer be possible to extend the margin of local labour markets. We must expect the situation which has been reached to stabilize and to remain unaltered for as long as energy costs enable households to behave as at present. However, it is probably necessary to make great efforts to retain a high standard of daily mobility if the individual is not to be restricted. This particularly applies to the possibility of several members of a household going out to work.

This increased travel mobility has enlarged the differences between social groups. Continued changes in personal mobility are likely to reinforce these differences still further. The groups at a disadvantage in this context are above all the younger generation, the increasingly large group of old people and the disabled.

There are only differences of degree between the mobility for commuting and the mobility for occasional changes in domiciles or people who commute weekly or seasonally. This type of mobility has gained in importance. The shorter working week and longer holidays are important factors in this development.

Residential mobility is less directly linked to transport and communication technology. Unlike travel mobility it has been remarkably constant (measured in moves across parish boundaries relative to total population). Moreover, at the level of the individual the frequency and distance of house-moving do remain low. The propensity to move is greatest among the younger elements of the labour force. The 20–29 age groups represented almost 40 % of the total number of persons moving across parish boundaries within Sweden.[13] There are several possible explanations for the higher tendency to move among young people: less firm roots in a particular environment, limited experience of working life, lower removal costs and greater sensitivity to wage differentials. A high propensity to move tends to coincide with the childbearing period. The children move with their parents. This pattern of mobility is thus more pronounced in a growing population than in a stationary or declining population which is characterized by a larger proportion of older people.

The rate of internal migration is also affected by variations in the structure of the regional population pyramids. Out-migration from a region leads in the first instance to a shrinking of the population pyramid in the 20–30 age group which has a high tendency to move. This group is of strategic importance for the continued development of the popula-

tion. A consequence of their reduction is that the birth surplus gradually decreases. This reinforces the effect of the out-migration. Ultimately this process will lead to depopulation.

The present pattern of residential mobility need not necessarily become permanent. New mobility patterns may not have penetrated enough to affect residential mobility, only travel mobility. In the United States, individual residential mobility is very much higher than here. Also in Sweden there are several forces which, in the long term, promote increased residential mobility. One of these is information technology. A nationwide computer-based labour exchange (which we shall have sooner or later) would, for example, make it possible to allocate labour in a manner which would be far less bound by distance than at present. Career specialization, a phenomenon which at least indirectly is conditioned by technology, must generally lead to alternative places of work being at a greater distance from each other than in a less differentiated society. The growth of large companies with widely spread production units in Sweden and abroad creates career patterns in which company loyalty may demand frequent moves. The development of data transmission technology, among other things, may lead to a further growth of such multinational corporations in terms of number and geographical extent.

A low propensity to move among older people outside the labour force has been a feature of the pattern so far. It is conceivable that other patterns may emerge in the future. One possibility, for example, is that people may change their domicile when they stop working. In a situation in which the location of the work no longer affects the choice of domicile, moving may prove to be attractive in order to realize ideals with respect to natural surroundings and climate, for example. Thus an individual's entry into and departure from the labour market would be characterized by a temporarily high propensity to move.

As was pointed out earlier there are obviously problems connected with increasing mobility. There is a risk that social networks and activity groups within various local communities will become disrupted and hard to re-establish. At present we know little about the environmental factors which can influence local cohesion. This cohesion can be expressed in a number of ways, such as effective transfer of knowledge between generations in connection with everyday work, the prevention of crime through social control and resocialization of deviants. In spite of a lack of detailed knowledge of the mechanisms involved there seems to be general agreement that mutual confidence and solidarity between people is not enhanced by a high degree of mobility. There are therefore obvious advantages to be gained from a small scale service

sector, so that people are not removed from social environments which are highly productive but difficult to create.

8.4.3 Care of Children and Old People

The care of children and old people imposes heavy demands on the resources of society. The age structure of the population is therefore crucial in assessing the extent to the need for such care.

Changed family patterns with a growing number of small households leads to a greater need for social provision of the kind of care which formerly took place within the family or household. This is above all the case with the needs of old people, of sick and of the disabled. A high degree of mobility will drastically reduce the immediate contact between the generations. The need for child-minding has also increased with the increased tendency for women to go out to work. The shortage of resources for collective care constitutes barriers to participation in many activities for a lot of people.

The demand for care of the sick varies with age and sex. For out-patient care it is lowest for the ages between 5 and 15 years and reaches a maximum between 55 and 67 years. The decline among the elderly can partly be explained by the fact that the need for care is met by in-patient care, for which the demand rises steeply with advancing age.

The demographic development in this Picture of Age D is involving a sharp increase in the number of old people relative to the working population. Given the current form and standard of care of old people, this will lead to exceptionally heavy demands on the resources of society in personnel and financial and real terms. These demands will become even more pronounced in view of the fact that the present capacity and standard of long term care is regarded as insufficient. Traditional care of the elderly is often indistinguishable from care of the chronically sick. Reorganization of this form of welfare, above all with more socially active forms of care particularly in the homes means that the present distinction between care of the elderly and long-term care of sick can no longer be maintained. In the future long-term care and its continued extension to meet the growth of the demand of old people are obviously critical problem areas.

The increased influx of people to urban areas can also increase the pressure on welfare resources. Inferior living conditions, poorer diet and social isolation have meant that the older people in remote and sparsely populated areas have, in some respects, had a greater need of service than inhabitants in urban settlements. The social resources and the awareness of social rights have, however, been insufficient to make these needs

evident in terms of demand. The urban setting can mean that demands will be more clearly expressed and will arise sooner. In other words, there will be a reduction of the gap between the need for care and the use of the facilities. A consequence will be increasing claims on the care resources.

The labour force in the care sector consists at present largely of women and young people. It is estimated that, during the period 1960–65, 89 % of personnel employed in the care of the sick were women and a third were below 25 years of age. A major proportion (80 %) of the total increase in employment consisted of married women. There is, therefore, reason to suppose that activity rates among married women will be an important variable in assessing the availability of labour in the care sector. A large proportion of the female labour force works part-time and this increases the numbers of employees needed. At present 135–140 employees are required to fill 100 full-time posts at any given time. This ratio is expected to increase partly because of the increase in holidays and partly because of the increase in the number of part-time employees. Over a 10-year period 165–170 employees per 100 posts may be needed.

The proportion of employees in the service sector has increased rapidly compared to that in industry, particularly as regards female labour. During the five-year period 1960–65, for example, employment of women in medical services increased by 27 % and in the economy as a whole by 13 %.[14]

Example 6. Using statistics[15] of the actual consumption of different types of medical care in different age groups an estimate can be made of future consumption within a stationary population. The calculations show an increase of number of bed-days:

somatic care	20 % increase
chronic care	125 % increase
mental care	25 % increase
out-patient care	no change

Converted into demand for personnel it would mean an increase of about 25 %, from a total of 160 000 persons in health and sick care (1969) to approximately 200 000.

The relationships between the care sector and the employment trend are illustrated in Figure 8.3. The estimates which can be made on the basis of today's tendencies and the available statistics clearly show that the resources needed by the care sector will increase sharply. As the example shows, the rate of increase depends on the age composition of the population. The development of employment in the welfare sector is

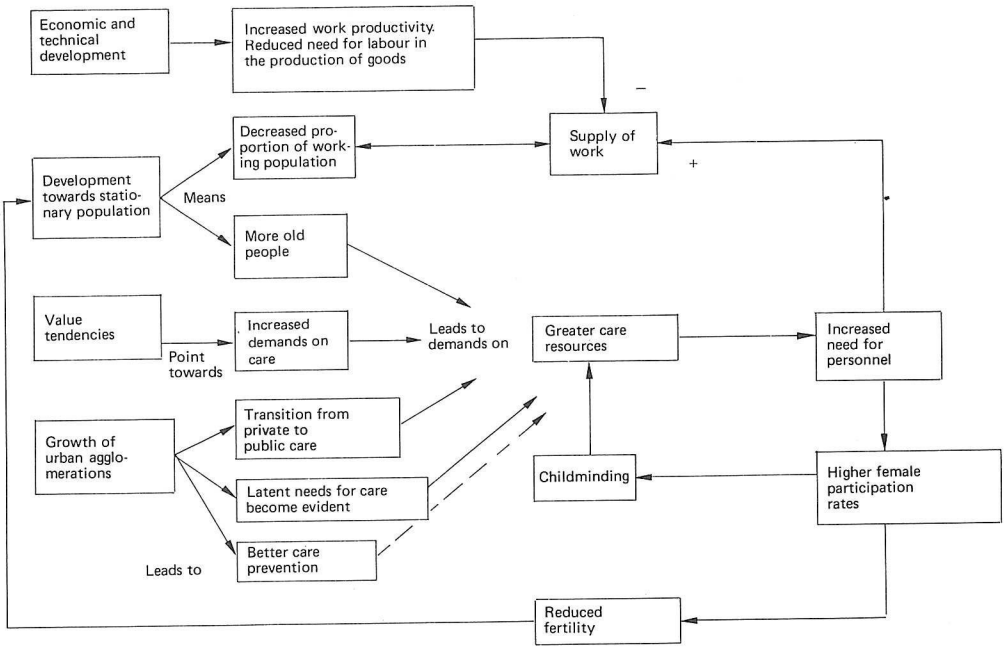


Fig. 8.3 The care sector and its relationships with employment development.

consistent with the 'post-industrial' assumption of a declining number of employees in manufacturing industry. Transfer of employees between sectors should, therefore, be possible. In practice, however, such an adjustment can be structurally difficult. The personnel demands of the welfare sector are increasingly met by married women. Restrictions in terms of childminding are already noticeable and a further increase in female welfare personnel could therefore have a multiplier effect by increasing the demand for childminding personnel. Hypothetically, an intense demand for labour and a high activity rate may also affect fertility and therefore, in the long-term, age distribution.

8.5 A Population Policy Analysis

8.5.1 The Critical Problem Areas

The consequences described in the preceding section gave an idea of the conflicts involved in adapting the organization of activities in society to

the development of the population. The problems emerge on different levels but interact in several ways.

A. A *quantitative* problem exists, linked to changes in the size of the population, particularly of the working population, and to changes in the scope of different activities. In absolute terms the population of Sweden will decrease according to this Picture. This change is in itself *not* of decisive importance. Increase in production and economic growth is not a function of the growth of the population; it depends mainly on other factors such as the generation of capital and technology. The important changes are the relative shifts within the population. *The number of older people requiring care is increasing. The number of women looking for work outside the home is increasing.* The demand pattern is changing and there will probably be a rapid expansion of the welfare sector. Even on this general level problems of adaptation can be expected to arise. The supply and demand equation will not balance itself automatically. The solutions may require reconstruction of the work pattern. Increased numbers of women working outside the home will lead to a changed distribution of production inside and outside the home. The change requires a redistribution of work between men and women with repercussions outside the home as well, as for example in terms of a need for flexible working hours. Some of the work formerly in the household is transferred to the labour market. This applies not least to child care, for which increased institutional arrangements are necessary in order to permit both parents to go out to work. The fact that society is increasingly oriented towards the labour market may also result in different types of service being increasingly provided at, or in the neighbourhood of, the workplace rather than the home, like shops, restaurants, health centres, etc. It is an important task for social and physical planning to see that residential areas do not give rise to isolation for pensioners and other people who have to stay at home. The increase in the need for geriatric care will impose very heavy demands on resources. Increased female activity rates can meet some of the ensuing demand for labour. However, it is conceivable that other groups of under-employed persons, for example, people above 65 years of age, could be mobilized. If so, here again a certain amount of redistribution between home production and other activities will follow. From the economic point of view, care of the elderly may have increasing effects on the equality balance between groups. Old people with high purchasing power may constitute an important market. Settlements of well-to-do old people of the kind we know from other countries may come into being. Inadequate social planning for old people may therefore give rise to sharp differences in the standard of care between different groups.

B. A *qualitative* problem exists related to the population structure, chiefly the *age distribution* within the active portion, and to changes in demand for services and goods. Technology amplifies human resources. As technology has become more efficient the differences in the results of people's efforts have increased. Technological development has produced major divisions where small differences in personal capacity are of increasing significance. The sex, age and education of the labour force are determining factors in the process of fitting people to jobs. Advancing age will tend to increase these problems. A society which, in its technology, made better use of experience would be one way of dealing with the difficulties. Withdrawing older people from the labour force is not the solution, even less in a population with an increasing number of this age-group. Exclusion from working life often leads to isolation and other social problems. A flexible retirement age, possibly with gradual reduction of working hours, would seem to be desirable. The decreasing number of working hours available during each human life also offers a chance to reorganize working time to include such activities as retraining, although people should not be expected to undergo retraining too many times in their life.

C. A third problem area concerns the mutual adjustment of people and activities in time and space. Such adaptation problems are accentuated in a society dominated by services which have to be produced, distributed and consumed simultaneously. A high degree of mobility has been a condition for the present division of activity in society. The current level, which can be maintained mainly because of high car ownership, can hardly be increased further by technology alone. The mobile society is energy-hungry and this will mean greater restrictions in the future. The increased freedom of action offered by mobility has not been available to all. The differences in mobility between different groups tend to increase and pose future social welfare problems. The need for mobility may become even more pressing by reductions in working hours. More and more time may be used for travelling.

Migration is a form of mobility which both supplements and replaces travel mobility. Even if residential mobility has been constant for a long time there are examples from other countries which indicate that changes may be imminent. Improved adaptation is gained at the cost of serious local welfare problems. A high rate of moving breaks up social patterns and creates difficulties for local political democracy. Loyalty to the company, trade union etc. rather than to the community may shift the political influence. Mobility also leads to family conflicts concerning, for example, the careers of the husband and wife. Increased isolation of old people also results from changes in the residence pattern. The extreme

age-dependence of mobility leads, regionally, to unfavourable age distributions. The proportion of young people in regions from which people move away decreases. Where the natural population increase is low, these difficulties are even more marked.

8.5.2 Interpretation in Terms of Population Policy

In the preceding section a short review was given of problems concomitant upon population development. Obviously, solutions to all of these problems cannot be found within the sphere of what is seen as population policy in a limited sense.

The most important population policy expressions of the problem areas that have been discussed can be summarized in the following paragraphs:

1. A new organization of working life

- new activities with an increasing emphasis on personal and welfare services
- a change in the allocation of work tasks between men and women
- new groups such as elderly and handicapped who are demanding work opportunities
- an increased demand for care of an increasing proportion of old people

The present policy of *full employment* should be developed towards a policy of *work allocation* between sexes, ages etc. with changes in the pension system, education system etc. as possible instruments.

2. A new regional organization

The undesirable effects of a high mobility demands

- a new population distribution policy, where security is derived more from place-oriented organizations, rather than non-local economic organizations.

The regional consequences of a diminishing total population demand

- a town-planning policy based upon renovation of the existing physical fabric rather than comprehensive urban expansion and new building.

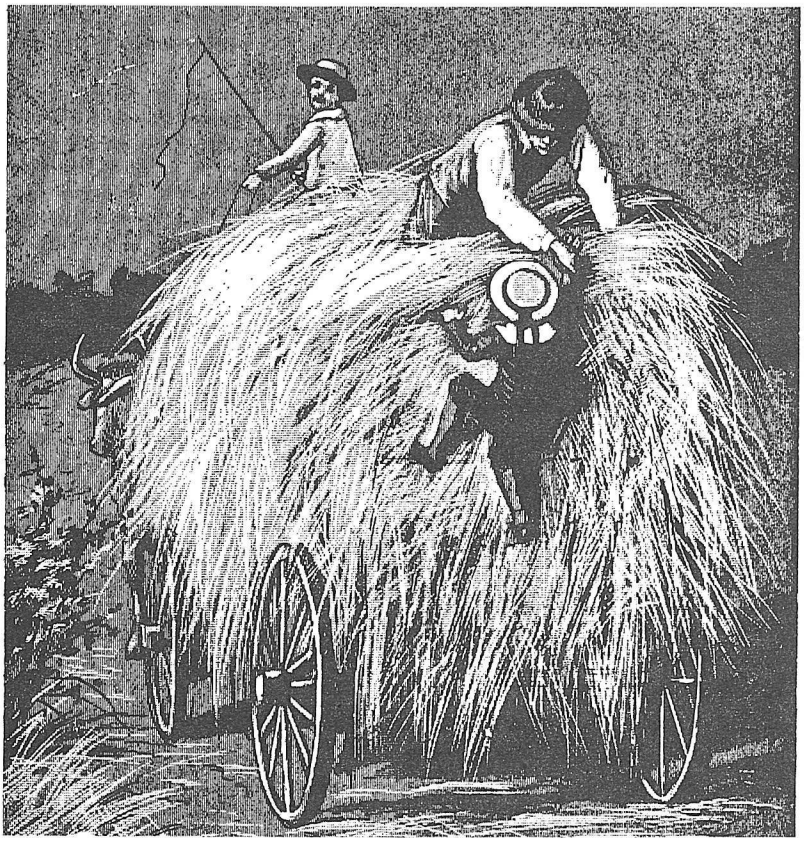
A challenge here is to try to intergrate children and old people into the daily activities of the community.

References

1. Vital statistics give no direct information on the number of children per family. According to "Befolkningens sammansättning 1972-12-31" (Composition of the population 1972-12-31) the mean number

of children under 18 years of age per cohabiting married woman is 1.95 for the age group 25–34. The total number of births per woman, on the other hand, may be estimated at 1.93 (total fertility rate), whereas the corresponding rate for women of Swedish citizenship only is 1.90 (Befolkningsförändringar 1972, Del 3 – Population Changes 1972. Part 3.). The mean number of children per married woman may be estimated at 2.1–2.2 for those who married in the ages 20–24 years and at 1.8–1.9 for those who married in the ages 25–29 years (these data refer to cohorts of women married in the early 1950's).

2. Ulla Lindström: Kvinnlig barnplanering i Sverige (Female child-planning in Sweden). Mimeographed, Lund 1973.
3. See note 2.
4. Ole Berthelsen, Jytte Ussing: Familiestørrelse og livsstil (Family size and life style). Socialforskningsinstitutet. Copenhagen 1974.
5. A German interview survey (STERN dec. 1973) shows that 51 per cent of those interviewed thought one boy and one girl to be the ideal family composition. There was also a slight predominance for wanting boys – in the relation 108 boys to 100 girls.
6. Choice of sex in connection with adoption gives no lead as to preferences in this respect. The availability of children for adoption is probably the main governing factor.
7. Increased adoption may also lead to further separation of childbearing and the biological age of the mother.
8. See note 2.
9. Departments for intensive care of myocardial infarctions in the United States have only had an insignificant effect on mortality counted in relation to the whole population. Experiments with health surveys and health controls of middle aged men in Gothenburg have not had any appreciable effect on mortality. Gösta Tibblin: Sjukdomarna och deras förebyggande (Diseases and their prevention). Mimeographed. Gothenburg 1973.
10. For a more thourough discussion of these questions the reader is referred to the study by Levi–Andersson (1974): Population environment and quality of life. Stockholm.
11. Orter i regional samverkan (Urban settlements in regional co-operation). SOU 1974 1. Stockholm.
12. These principal arguments are well-known. For a critical appraisal and analysis see e.g. Norman Ryder: Two cheers for ZPG. *Daedalus 1973.*
13. Befolkningsförändringar. Del 3. (Population Changes. Part 3).
14. Sjukvården i Skåne. (Medical care in Scania). Malmö 1970.
15. Hälso- och sjukvård inför 80-talet (Health and medical service at the prospect of the 1980's). Stockholm 1973.



9 A Break in Cultural Homogeneity

(Picture of Age E)

The Picture of Age E describes a different post-industrial society. The size and structure of the population are changed by large-scale immigration. Among the immigrants, the young and able-bodied are over-represented in relation to the original population. The age pyramid is being 'rejuvenated'.

Economic differences between the countries of Europe are being

reduced. Immigrants come from more and more distant countries. There is a large proportion of poorly-educated persons, who accept jobs not wanted by Swedes.

For the individual immigrant, migration to Sweden is financially worthwhile. The immigrant is important in the recruitment of labour by companies. The effects of immigration upon the national revenues and expenditure are difficult to determine. Domestic advantages and disadvantages are not the only determinants of the level of immigration. International conditions can develop to the point where immigration can no longer be completely controlled unilaterally; it can come to be required as a form of development assistance.

Large-scale, rapid immigration tends to produce a menial, lower class. The better-educated immigrants are quickly integrated; the others remain at the bottom. Differences of language, religion and life styles form a barrier which limit career opportunities. Cultural and political conflicts appear. Xenophobia is latent among the Swedish people, appearing especially when they themselves have difficulty in obtaining work. Large-scale immigration is accompanied by the risk of the formation of ghettoes in the larger towns and cities and industrial areas. The immigrants represent many different ethnic groups, and it is unlikely that they can act with political unity. Conflicts between groups of immigrants are a problem.

With large-scale immigration, integration into Swedish life is not realistic. Pluralistic solutions must be tried. Faced with immigration, the political institutions must learn to cope with the long-term situation.

9.1 Some Demographic Assumptions

In the preceding Picture, on the reorganization of working life, immigration and emigration were disregarded. This enabled certain problems to be extracted and discussed independently, particularly those connected with the age distribution of the population. In the present Picture, however, we study the possibility of large-scale net immigration into Sweden. A large number of conditions are assumed to remain as in Age D, so we can concentrate our attention on the specific consequences of a pattern of immigration which has the following assumed characteristics:

a) A birth rate at the same low level as in the preceding Picture for the native Swedish population, while the immigrants are expected to have a somewhat higher birth rate.

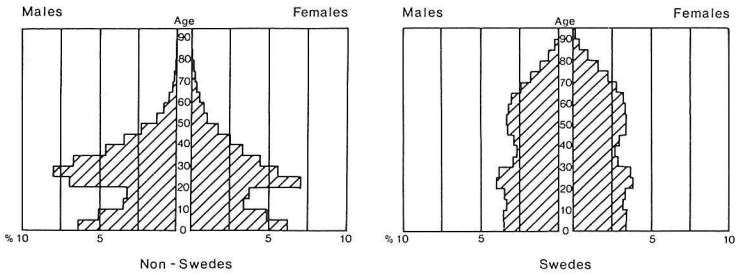
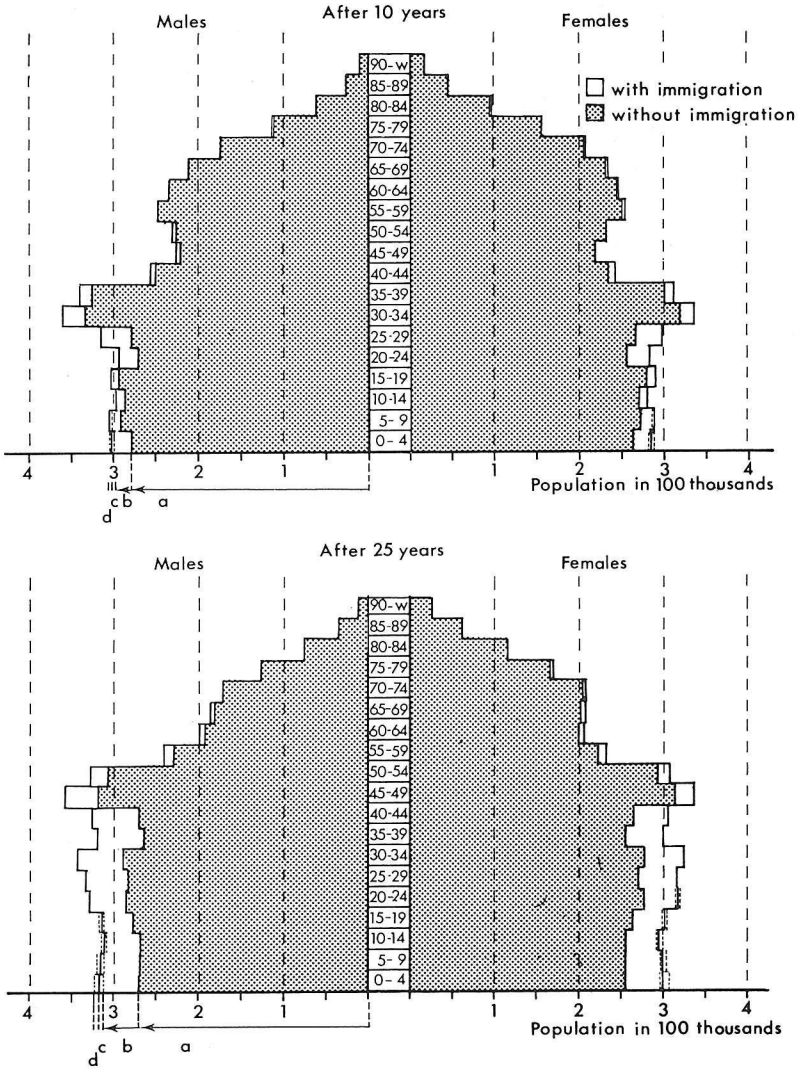


Fig. 9.1 The whole population and aliens by sex and age, 1970.

b) The death rate is unchanged and does not differ appreciably between the native Swedish population and the immigrant population.
c) Net-immigration is at an average rate of about 30,000 persons per annum, i.e. on the same scale as during the latter part of the 1960's.

Compared with the preceding Picture, immigration will result in a larger population with a different age structure. The age distribution of the immigrants differs from that of the native population, aliens being concentrated in the younger age groups and having a larger proportion of small children than the Swedes. The age-specific fertility is also higher (approximately 15–25 %).[1] Whereas in 1970 foreign nationals represented 4.6 % of the entire population, those aged 0–6 years represented as much as 7.8 % and those aged 67 and more only 0.4 %.[2]

On the assumption that the birth rates of immigrants and of the original population remain in their present ratio and that the age structure of the immigrants remains unchanged (as in Figure 9.1), then the proportion of the population of foreign orgin in Sweden will change. There will be a marked proportion of immigrants, especially in the younger age groups, and at the end of the century approximately 15 % of the population will be of foreign origin, compared with approx. 8 % 1970. On these assumptions, the age distribution will appear as in Figures 9.2 a–b:



a = no immigration
b = same fertility
c = 10% higher fertility } with immigration
d = 25% higher fertility

Fig. 9.2 a Population by age and sex.

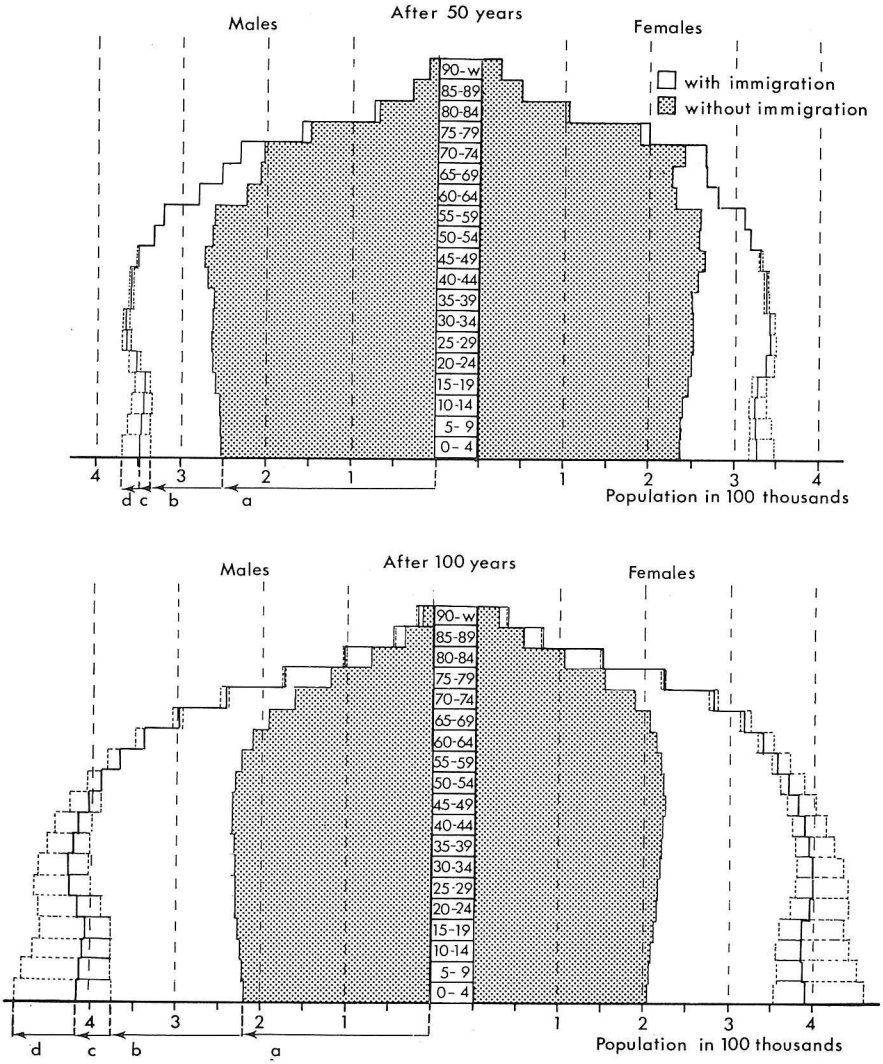


Fig. 9.2 b Population by age and sex.

9.2 Immigration Conditions

9.2.1 Immigration Policy and the Labour Market

International migration is a sphere in which population policy exerts direct influence. Immigration and emigration are governed chiefly by national restrictions and international agreements. Except within the

common Scandinavian labour market, the Swedish authorities can at present exercise quantitative control over immigration. However, the conditions under which future immigration into Sweden will take place can change. If Sweden is integrated into a larger European social and economic community, independent national control of immigration will be lost. Humanitarian reasons can be used as a motive for encouraging immigration as a form of assistance to developing countries. Sweden as an isolated island of prosperity is in the long run an unrealistic future perspective. Behind international migration, there also lies a driving force which individual states cannot easily influence. These include the concentration and transfer of capital between countries, for example, through the multinational companies.

The labour market plays a crucial rôle for international migration. Most immigration is by individuals, but collective transfer of labour has taken place under the aegis of public authorities and private companies ever since the end of World War II. The international labour market situation affects immigration into Sweden through external unemployment creating pressure on the Swedish market. Conversely, a demand for labour in Sweden can result in a demand for more immigration and an active recruitment of workers from abroad.

Immigration has hitherto proved to be highly dependent upon economic circumstances. This applies especially to immigrants from Finland and other Scandinavian countries. This immigration will probably diminish owing to relatively greater domestic employment opportunities in these countries. Further large-scale immigration will, therefore, consist of increasing numbers of non-Scandinavians, a category which can be expected to be less sensitive to fluctuations in economic conditions. This is partly because immigration takes place in stages – basically young workers who are subsequently followed by their families. Consequently, immigration is also maintained during periods of economic recession.

Labour migrants form the largest group. However, during certain periods there has also been a very large influx of refugees into Sweden. After World War II there were about 195,000 foreigners in the country, most of them refugees. In 1944 the employment exchanges filled no less than 45,000 posts, about 5 % of all jobs procured, with refugees.[3] The immigration of refugees did not stop, however, with the end of the war. It is estimated that about 30,000 refugees were granted permission to settle in Sweden during the period 1950–71. It is not unlikely that there will be a certain amount of permanent influx of refugees. International crises can result in occasional sharp increases in such immigration.

Sweden is also strongly affected by the international mobility of highly-trained specialists. Although this mobility is increasing it will

never be on a very large scale; but it can have qualitative effects, which are difficult to predict, upon certain activities in the community.

9.2.2 Income and Occupation

It should be possible to make a preliminary appraisal of the conditions leading to a person's migration to Sweden from abroad by comparing his present income with the anticipated income in the country of emigration. If the difference is positive and exceeds the costs of removal, the migration can be considered financially worthwhile. Of course, the migration decision is also influenced by a number of other non-economic factors.

Average industrial workers' wages in Sweden and in some possible countries of emigration have been compared using 1969 as a base.[4] The 'expected' future wages in the country of origin have been obtained by extrapolating the rate of increase prevailing in that country in the period 1960–69 and then discounting these figures back to 1969. The 'expected' wage levels have then been compared with average industrial wages in Sweden to reveal the earnings differential that will accumulate over a number of years.

Table 9.1 Calculated present value ('000 kronor) of immigration for a discount rate of 6 % and a calculated migration cost of 2,000 kronor for industrial workers.

Length of stay in Sweden, years	Finland		Italy		Yugoslavia	Federal Republic of Germany	
	men	women	men	women	men	men	women
1	10	9	10	9	22	4	5
5	58	56	56	52	111	23	31
10	117	118	105	109	209	40	63
20	225	256	181	140	365	57	129
40	410	573	264	408	533	39	260

The table shows that the highest differentials are obtained for a long stay in Sweden, i e immigration should be financially worthwhile, especially for young persons who intend to settle permanently. The incentive to migrate is strongest for Yugoslavs, followed by Finns, Italians and Germans, in that order. If the values are adjusted for actual purchasing power, they will be rather lower; but they are still favourable in all cases except for German workers who stay in Sweden for a very long time.

Table 9.2 Standard of living in Sweden compared with that in the home country

	Living standard compared with home country (percentage of answers)				
	much higher	a little higher	about the same	a little lower	much lower
Finland					
All	25	56	17	2	1
Men	23	60	15	2	0
Women	26	53	8	2	1
Italy					
All	20	37	36	6	2
Men	20	35	36	6	3
Women	19	40	35	5	1
Yugoslavia					
All	44	42	9	1	3
Men	42	42	10	1	5
Women	47	43	8	2	1
Germany					
All	15	34	45	5	2
Men	12	35	46	6	2
Women	20	32	43	4	2

Most of the immigrants also seem to consider their living standard in Sweden to be higher than it would have been had they stayed in their home country. Table 9.2 gives a picture of the assessments made by the immigrants in this respect.[5]

The survey indicates that there is a very definite financial incentive for further heavy immigration for certain categories of foreigners.* This is true, provided that the economic differentials that prevailed between countries at the end of the 1960's continue in the future, which is doubtful. Indeed, a reduction of differentials in productivity and living standard between Sweden and other countries in Europe is likely. Immigration can actually contribute to this process.

The immigrant groups are not socially and economically uniform. Some groups, southern Europeans and Finns, for example, are concentrated in manufacturing and service occupations. Others, for example Germans, British and Norwegians, often come under the category of office staff and specialists. There are also wide differences in education and income between different immigrants. Quantitatively, however, the

* Immigrants from a number of non-European countries can certainly be included here.

influx of poorly educated foreign labour to low-paid jobs is a dominant feature.

In a future service-oriented community there will be a risk of this tendency becoming permanent. Some services require only unskilled labour. Such industries, with their relatively low productivity, and consequent low wages, can encourage firms to seek their labour on the international market at lower cost. Whether this condition for immigration will continue to apply largely depends upon trade unions and political influences upon the labour market.

9.2.3 Knowledge and Information

It is a well-known fact that migration is closely related to the knowledge the potential immigrant has of the situations he can expect to find in the new country. Table 9.3 gives an idea of what migrants have subsequently thought of the information on which they based their decision to emigrate.[6] The immigrants were asked to answer the following question: "Would you have come to Sweden if you had had the knowledge of the country that you now have?" The majority of immigrants clearly

Table 9.3 The decision to emigrate in relation to present information about Sweden.

Country of citizenship	Would you have emigrated to Sweden with present knowledge? (percentage of answers)		
	Yes	Doubtful	No
Finland			
All	78	18	5
Men	78	17	5
Women	78	18	5
Italy			
All	63	20	17
Men	59	23	19
Women	72	15	13
Yugoslavia			
All	72	16	12
Men	70	17	13
Women	74	14	11
Germany			
All	76	17	7
Men	74	17	9
Women	80	17	4

Source: Immigrationsundersökningen. (Immigration Survey).

consider their decision to emigrate to be correct in retrospect.

In the future, information facilities will improve. Growing internationalization, progress in information technology, mass media and greater international mobility are contributory towards this improvement. At the same time immigrants who are already in Sweden constitute an important source of information for those who are still in the home country. This informal, personal channel of information is likely to be the most important and its effect is strengthened with increased immigration.

These channels of information can help to bring about immigration from new areas. A small number of early immigrants in Sweden initially send back information to potential migrants in the country of origin. A probable example of this effect is Assyrian immigration. In 1968 there were 200 Assyrian immigrants in Sweden. Five years later the number was seven hundred. In 1972, 700 immigrants came from Uganda. The following year there were about 900 Chilean refugees. And another five years later?

The immigrant's knowledge and information can also determine how well he or she copes with the situation confronting them on arrival in the new country. Knowledge of the Swedish language is an important asset for enabling the immigrant to reach and be reached by the Swedish community. Surveys have shown that there is wide variation in knowledge of the Swedish language between different groups of immigrants. Some of the factors are: differences in level of education, differences in opportunities for contact outside the home (differences between men and women appear here) and differences of linguistic origin (German-speaking immigrants have an advantage over other groups here). For both children and adults, the schools play a key rôle in strengthening the resources of immigrants in this respect, a necessary condition for preventing isolation from the Swedish community.

9.3 Fertility

The conditions that have led to a low birth rate were discussed in detail in the preceding Picture. The interesting question here is whether the fertility of immigrants can be expected to differ from that of the original population and the conditions under which such a difference could be maintained. The meagre empirical material available indicates that immigrants from non-Scandinavian countries have approximately 15–20 % higher fertility than comparable age groups of Swedish origin. Whether this difference will also appear in the next and subsequent generations is

difficult to say; the empirical data on this are very sparse in Sweden. Parallels with other ethnic minority groups such as the Lapps indicate that these differences disappear rapidly. Their disappearance also depends upon how the pattern of marriages is affected and how adjustment to the Swedish community takes place.

9.4 Mortality

Available statistics show that the differences in mortality rates between groups of immigrants and other groups are relatively small, although at present the Swedes have a slightly lower rate (except in the highest age groups).

There is reason to expect that, in the future, this difference will be marginal. It can be assumed also that all individuals, immigrant or native Swede, will have the same benefit of health and nursing services. Nevertheless there remains the possibility that the influence of conditions in the former home country will lead to a different mortality trend among immigrant groups, since there is some evidence that foreign immigrants can be more prone to certain diseases, such as tuberculosis, which has now been almost completely eliminated among the native Swedish population.

9.5 Emigration

Emigration of Swedes on a considerable scale was not considered to be a real possibility. Emigration will probably be confined to a fairly small group of internationally circulating specialists. There is, however, one very interesting variable: the return home of different groups of foreign nationals after a short stay in Sweden. In a recent study re-migration during the period 1968–1972 was analysed.[7] Some of the results are presented in Table 9.4.

The study shows that re-migration was greatest among groups of foreigners with a high proportion of 'specialists', e.g. immigrants from USA and Great Britain, but also among immigrants from the Nordic countries. Re-migration was least among groups with a high proportion of refugees, e g immigrants from Poland and Hungary. The Italians show a high level of re-migration, although they do not come under the heading of specialist immigrants. Special cultural factors must be at work here. Other south European groups such as Greeks, Turks and Jugoslavs show low rates of re-migration.

Table 9.4 Foreign citizens who had re-migrated at the end of 1972 by sex, citizenship and year of immigration. Per cent of the number of immigrants.

Citizenship	Year of immigration					
	1968		1970		1972	
	M	F	M	F	M	F
Finland	32.4	27.1	40.4	29.6	10.5	9.4
Denmark	50.6	49.7	50.3	45.7	12.3	10.3
Norway	51.2	45.3	46.9	39.2	11.6	9.2
Yugoslavia	12.0	17.0	9.2	10.5	2.9	2.5
Greece	19.2	21.0	12.4	12.7	0.8	2.1
Germany	31.3	39.7	29.9	34.5	4.6	6.5
USA	43.6	49.9	28.5	30.2	3.7	4.4
Great Britain	43.2	53.9	22.9	27.7	2.7	3.3
Poland	14.8	14.3	7.5	4.9	1.0	0.8
Hungary	9.0	6.9	7.2	9.6	1.4	1.6
Turkey	18.4	12.8	16.5	7.0	0.0	0.3
Italy	33.5	40.2	21.4	33.0	4.8	3.3
Other	26.7	25.6	15.0	14.2	2.3	1.7
All countries	32.6	29.6	31.7	25.1	6.9	6.0

Source: Återutvandringen från Sverige åren 1968–1972 (Re-migration from Sweden in the years 1968–1972) Information i Prognosfrågor Nr 1973:10.

9.6 General Problems and Individual Worries

9.6.1 Economic Conditions

The connection between population size and economic growth is not sufficiently clear to serve as a guide in a discussion of population policy. There is no convincing proof that increasing the population, for example through immigration, would be a means of increasing national prosperity. However, attempts have been made to assess, in a rather limited sense, the 'profitability' of an immigrant into Sweden. The following example is taken from the Immigration Survey.[8] The calculations are confined to small scale immigration. It is assumed not to reach a level that will affect prices and wages. Put very simply, the net addition to the gross national income which an immigrant represents can be estimated from the value of taxes minus transfers minus the change in public expenditure. The results arrived at with this method of calculation are given in Table 9.5 below. The survey covers Finns, Italians, Yugoslavs and Germans who came to Sweden during 1961–68 (Yugoslavs during 1964–68). The calculations are for the year 1969.

According to this calculation, the Swedish people should clearly gain economically from the presence of migrants in the country, in the sense that the volume of production should increase.

Table 9.5 Taxes, transfers, change in public expenditure per immigrant of sixteen years or over (in '000 kronor)

Length of stay in Sweden		Country of citizenship on immigration			
Years	Corresponding year of arrival	Finland	Italy	Yugo-slavia	Germany
1	1968	4	1	1	3.5
2	1967	2	4	2	3.5
3	1966	3.5	4	2	5
4	1965	2.5	3.5	3.5	5
5	1964	2.5	2.5	4	4.5
6	1963	2	4.5		4
7	1962	2	4		5
8	1961	2.5	4.5		3

Immigration into Sweden has economic effects also for the inhabitants remaining in the country of emigration. It is not possible to determine whether the population left behind 'gains' or 'loses' from migration to Sweden. This depends very much upon the employment situation. If the immigrants previously belonged to the unemployed part of the population, it is conceivable that production in the country of origin will remain unchanged. In other words, migration means a gain in this case. However, immigration consists largely of persons of the younger, more active age groups who are, at the same time, the most fit for work, have a high taxable capacity and make few demands on public welfare funds. In some cases immigrants can be well-educated specialists such as doctors. Here migration is obviously a 'loss' and a potential conflict clearly exists between the country of origin and the country of destination.

The recruitment of foreign labour probably comes under consideration primarily where there is unused capacity in a company. The 'profitability' for the original population will then depend on whether any increase will occur in employment for the domestic population in the alternative case of no immigration. There is reason to suspect that immigration can replace certain categories of domestic labour, particularly those on the fringes of the labour market such as the elderly and handicapped.

Immigration also affects imports. Generally, the greater the propensity to import, the less the effect of immigration upon total demand and the worse the effect on the trade balance. The effect upon the trade balance can be modified, however, by the fact that immigration makes it possible to develop export industries more quickly. No empirical material is available, however, to elucidate any 'export effect' that immigration might have in Sweden.

Economic fluctuations in Sweden are greatly affected by international

trends. The rôle played by immigration in this connection has been calculated in a simple case.[9]

The method involves attempting to estimate how a small increase in immigration affects various areas of supply and demand in the national economy. It is assumed that investments in housing and public capital projects are affected by immigration and that no spare capital is available for housing and public projects at the places of immigration. Exports are assumed to be determined externally.

Let us suppose that the necessary new investment takes place in the first year: the result will then be an upswing in economic activity in the short term. The rise in demand will exceed the rise in supply. In subsequent years, on the other hand, there will be a slowing-down of activity. This applies, with the assumption of both an occasional one year increase in immigration and continual immigration, from the first year onwards. If we assume that the balance of payments is unaffected, then the short term strengthening of the economy will be even greater. With constant annual immigration, we get increasing economic activity in the first three years.

If it is assumed that investment in housing and public capital projects takes place over a two or three year period, i.e. that the average standard in this respect temporarily falls, a different result is obtained. Only if the balance of payments is assumed to remain unchanged do we get any strengthening of the economy in the short term; if balance of payments restrictions are lifted, a downturn in economic activity will take place in the short term as well.

The example shows that immigration can hardly be an effective instrument of an economic stabilization policy. Only if we are prepared to lower the required standard of housing and public services would an increase in immigration clearly help to eliminate general surplus demand in the economy. To use immigration as an instrument to strengthen economic activity, on the other hand, seems to be even less appropriate. In any recession, i.e. in a situation with high domestic unemployment, such a policy would require an increase in immigration. If the capital requirements of the immigrants are met in the very first year, then employment of indigenous labour will certainly increase. However, this method of stimulating the economy seems unnecessarily complicated.

9.6.2 Working Conditions and Unemployment

Large-scale immigration into Sweden affects the competitive situation on the labour market for different groups. A survey[10] of employer preferences for different categories of labour shows that younger Swedish

men (under 54 years) are preferred to younger Swedish women (25–54 years), followed by older Swedish men, foreign men, other categories of women and handicapped persons.

Immigrants have lower incomes on the whole, and there is a tendency for immigrant unemployment to be lower than unemployment in the population at large under boom-periods and higher in recession periods.[11] The distribution of occupations among foreigners registered as gainfully employed shows pronounced social stratification within the immigrant group, but has a concentration in manufacturing and service work. Whereas only 46 % of the entire population in Sweden was employed in manufacturing and service work in 1970, a good 76 % of immigrants was employed in these sectors in 1971.[12]

An increase in relatively well-educated foreign labour produces a competitive situation over the whole labour market. On the other hand, an 'import' of poorly educated, low-paid foreigners can broaden the economic base and will tend to increase career opportunities for Swedes but at the unacceptable price of a new, lower class in the community.

Labour unrest, in the form of wild-cat strikes with a high proportion of foreign workers participating, can increase. Experiences from Germany and France, for example, in recent years reveal the explosive situation that is created by the concentration of large groups of foreign workers in the worst, lowest-paid jobs. It is a long way, however, from occasional, spontaneous acts to more united, protracted industrial action on the part of the immigrants. Difficulties of language and of social segregation also form effective barriers to more unified behaviour. Conflicts between different groups of migrants can be foreseen.

Employment is affected by changes in the structure of industry. The significance of immigration can here be interpreted in two fundamentally different ways. Large-scale immigration adds an increment of young persons to the population growth. Changes in the demand for labour can occur through the addition of new labour from immigration, and this facilitates faster reorganization of the industrial structure. Significant immigration can influence investment by industrial companies in another direction, however. Lower wage demands from the immigrant population can help to maintain existing wage differentials and make new company investment more labour-intensive. This effect could be even more prounounced if it is coupled with increasing shortages of energy and natural resources which lead to rising prices for those production factors.

9.6.3 *Mobility*

Geographical mobility of the labour force has been an essential requirement for rapid re-structuring. This means both greater travel mobility and residential mobility in the form of migration from rural to urban areas. Residential mobility among the Swedish population shows a perceptible dependence upon age. It results in a regional age distribution with over-representation of older, inactive groups in the places of out-migration and a relatively young population in the expanding densely populated areas. Not unexpectedly, the immigrant population differs in the geographical distribution from the Swedish-born population. At present most immigrants go to the metropolitan areas, places which in any case tend to attract young and mobile people in search of high incomes. So the attraction of immigrants to the large cities reflects the fact that they have a higher level of mobility than the average Swede. Moreover, studies have shown that immigrants are particularly sensitive to income differences in their choice of workplace: so the tendency for immigrants to go to the metropolitan areas can be largely accounted for by the high wage level prevailing there.[13]

In this Picture, we have paid attention to the rapid geographical redistribution of labour (where large-scale immigration can be a contributory factor), causing problems in expanding regions. The expansion of trade and industry in a city, with its accompanying influx of labour, requires development of housing, roads, schools, etc. The resources that exist at the outset for such expansion are vital in order to allow the social capital to expand in line with population growth. This applies to the available supply of capital and labour in, for example, the building sector. An increase in certain sectors can take place partly through the reduction of other sectors within the region and partly through an influx of capital and labour from outside. It must be noted that if a fall in the rate of industrial expansion in the cities occurs simultaneously with increasing expansion in other parts of the country, it may be necessary for resources which are at present providing for the development of social capital in the cities to be re-distributed. These sectors are thus highly sensitive to change.

9.6.4 *Housing*

Despite the currently rapid generation of new capital, at least 30 % of the national capital stock of 1970 was built before 1950.[14] This includes both public and private capital. As far ahead as 1990 this old capital can be expected to account for around 10 % of the total. In a 40-year period

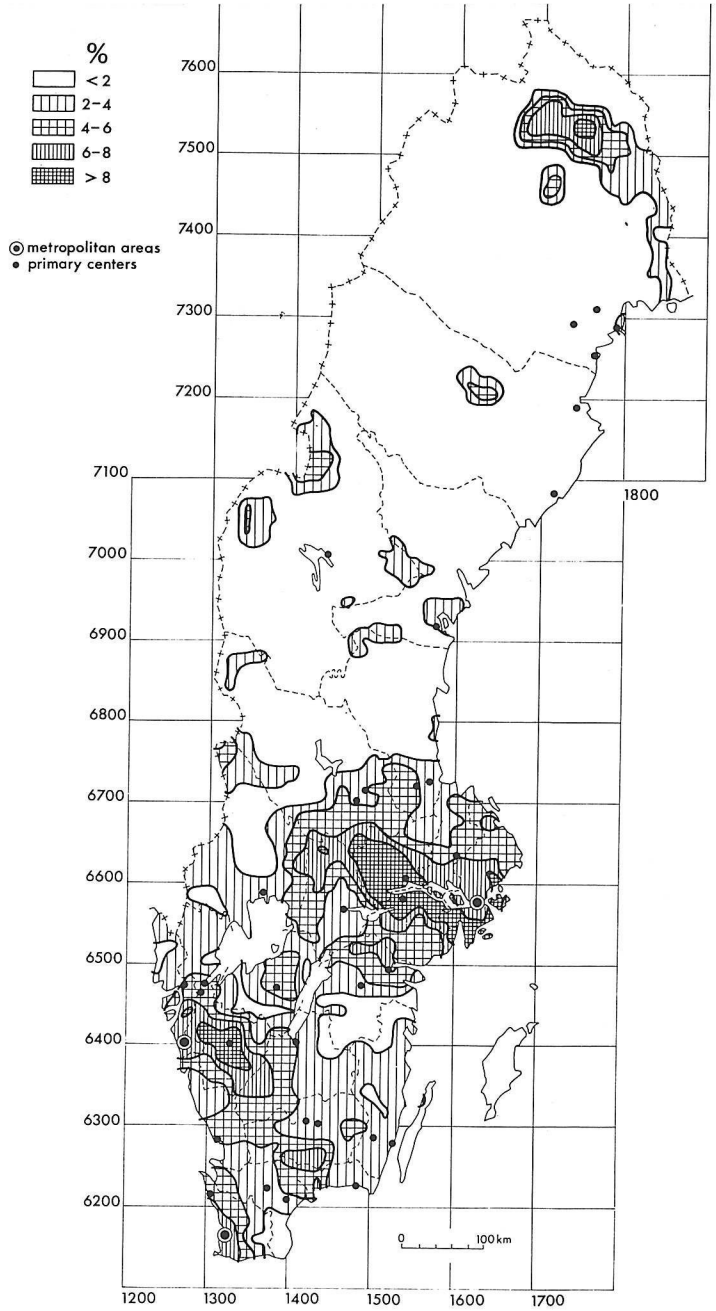


Fig. 9.4 Non-Swedish citizens living in Sweden 1973 . Proportion of the population.
Source: Orter i regional samverkan (Urban settlements in regional co-operation) SOU 1974:1. Stockholm.

such a structure can be re-built. It is against this time perspective that changes in the regional distribution of the capital stock must be viewed.

The figures give some idea of the degree of freedom of action with respect to the future. They tell us something about how fast – from a purely technical point of view – settlements can expand and contract. The housing supply constitues an important part of the capital stock. Regional differences in size and quality of the housing stock can indicate differences in the 'immigration capacity' between different parts of the country. At the same time, the supply of housing within a region can be seen as an economic restriction on outmigration. When people move away from an area, leaving habitable housing, new housing has to be built in the place to which they move. This means a loss of capital from society's point of view.

An analysis of economic objectives in the Gothenburg region during 1966–70 shows how this kind of problem can arise.[15]

The housing construction target for Gothenburg was an increase of 11–12 % annually between 1963 and 1970, covering new housing both to accommodate migrants and to compensate for the slum clearance that was considered necessary. The aim was to provide both the original population and the new residents with a good living environment, and this necessitates various municipal services. If this target was to be achieved the building labour force would have had to be doubled between 1963 and 1970; the proportion of labour employed in the municipal services would have to be increased from 12 to 22 %; the local taxes would have to be increased, from 13 kr per taxable 100 kr in 1963 to 24:50 kr in 1970 on the assumption that the trend in municipal borrowing did not change.

This would have implied, in fact, that all the new labour, and more, would be needed for house building and for services to residents if the target was to be achieved. Industry, wholesale trade and even communications would be forced to have fewer employees in 1970 than they had in 1963. Industry would be able to increase production by only 2 % annually, as against the 8 % that it appeared to have planned.

As will be seen from this example, there is a great problem of equilibrium connected with the rate of increase in the expansion of cities. If an attempt is made to execute the development programmes of the different sectors, a labour shortage arises. This cannot be remedied unless the targets are changed for a transitional period. Several courses are open in this case.

Lowering the standard of housing has been mentioned. Another possibility is to try to reduce the rate of people moving into the city so that existing capacity is sufficient. One more possibility is increased

imports of capital goods, such as prefabricated building elements. It would probably be necessary to finance this by increased borrowing or taxation and reduced private consumption.

9.6.5 Social Issues

Great difficulties are involved in making any overall assessment of future immigration and of social integration of the immigrants into the Swedish society. The only thing that the different immigrant groups have in common is that they are all coming to a community without much of a tradition of incorporating within itself new population groups and with little experience in handling differences.

Further large-scale immigration will consist more and more of non-Scandinavians, mainly south Europeans and even non-Europeans. This means that the immigrants will consist more and more of groups who, because of differences in language, religion and general life style can be assumed to have particularly great difficulties of adjustment in Sweden. These groups also include large proportions of poorly educated persons, aggravating the difficulties further.

No systematic studies are available yet concerning cultural differences between immigrant groups and Swedes. It is clear, however, that many south European groups are characterized by what may be called more traditional cultures. This is shown by the following facts: compared with Sweden, religion plays a greater part in the people's lives; the woman is apparently more subordinate to the man and contact between the sexes outside marriage is more restricted and controlled. The latter aspect of the traditional cultural pattern also involves placing strict taboos on everything to do with information about sexual matters, such as contraceptive instruction in schools.

As a result, contact between these immigrants and the Swedish society with its different cultural pattern is full of potential conflicts. The Swedish educational system has been very much directed towards the assimilation of children from immigrant families. A similar situation applies to other minority groups, such as the Lapps. This has created serious conflicts for many immigrants. Teenagers also get into difficult conflict situations because the norms in their homes clash with those expressed by their school-mates. Another consequence of the more traditional cultural pattern is the isolation of women in the home and within the family which, among other effects, can make it difficult for these women to take part in Swedish instruction and to be reached by the public channels of information.

Non-Swedish subjects in Sweden tend to concentrate in city areas and

in certain industrial towns. In addition, there is segregation of immigrants within these areas. The larger these immigrant groups become, the more clearly can patterns of ethnic stratification become established. This segregation provides contacts with fellow countrymen which can provide an important sense of security and identity, especially at the beginning. On the other hand, close association with fellow countrymen diminishes the opportunities for contact with Swedes, their language and their customs.

Thus, the existing tendencies towards segregation will be strengthened further. The increasing numbers of these immigrant groups combined with their geographical concentration will, for example, make the formation of separate ethnic communities such as those in the USA, Canada and other countries more and more possible.

Now that immigrants represent a greater proportion of the Swedish population, they are able to exert more influence on the Swedish authorities. They will also probably be given greater opportunities to build up their own institutions and thereby live their own lives. For the Lapp minority important steps in that direction have recently been taken. The Finnish immigrants who, despite their smaller share in the future immigration assumed above, will constitute the largest minority group in Sweden, play a key rôle in this respect. Owing to the size of this group, the special position of the Swedish-speaking minority in Finland and cultural co-operation in Scandinavia, the Finnish immigrants can claim special privileges, particularly in fields such as education. If these special rights are granted to the largest minority, it will be difficult for the Swedish authorities not to grant the same rights at least to the other large minority groups in the country. Thus, the situation in Sweden could come to resemble that in Canada, where the special position of the French-speaking minority provides a guarantee that other minorities will also be granted special cultural privileges. One difference, however, is that, despite an assumed further net immigration of 30,000 persons annually, the minorities in Sweden will form a smaller proportion of the population than in Canada, where the French minority alone represents nearly one-third of the total population.

An example of the 'pressure' on the Swedish authorities to strengthen the position of immigrants in Sweden is the recommendation submitted to the Nordic Council by the Finnish government that Scandinavian immigrants should have local voting rights and be eligible for local government posts, regardless of the Scandinavian country in which they reside. It was decided, in September 1973, to support the Finnish recommendation in principle and to recommend that the Scandinavian countries should determine the practical measures needed to implement

the proposal.

Local voting rights for Scandinavian immigrants will undoubtedly result in more attention being given to the problems of immigrants by the political parties. This can mean, for example, increased national and local support for the immigrant groups' own institutions. On the other hand, there are no signs that there will be more unified political action, say in the form of a special immigrants' party. They are too disunited in that respect. Moreover, even with wider municipal suffrage, many immigrants will still be excluded from voting rights and eligibility for office.

To summarize, it can be said that continued immigration on the same scale as during the latter part of the 1960's will mean important changes for the homogeneous national culture of Sweden. A contributory factor is that nearly 25 % of the population in ages below 25 years will be of foreign origin at the end of the century. We can also expect this development to lead to an increase in immigrant institutions. Among other contributory factors are the increased numbers of immigrants and their probably increased political influence. We can also expect the countries of origin of the immigrants to claim special privileges to a greater extent than hitherto, especially in education, for their nationals who have come to Sweden. These special privileges can be produced either through bilateral agreements or through international conventions.

In general the consequences for the Swedish community from this pluralistic tendency will largely depend upon the reactions of the Swedish majority population. Our fragmentary knowledge of discrimination against immigrants in Sweden indicates that there could be a latent hostility towards foreigners among some Swedes. This is soon aroused in certain situations, e.g. when there is a shortage of housing or high unemployment. With widespread discrimination against immigrants in their attempts to gain a temporary or more permanent social and economic foothold in the Swedish community, the ethnic institutions become bastions for common defence, i.e. bases for the formation of ghetto-like areas. If, on the other hand, the trend is towards less discrimination, the ethnic institutions become more exclusively a support for the immigrants during their integration into the Swedish community. Under these conditions many immigrants, especially the better educated, make very little use of this support, but are absorbed directly. At the same time the poorly educated come to have greater need for support from their own institutions when coming into contact with the new community.

9.7 Political Issues surrounding Population Policy

The pros and cons of a restrictive immigration policy were mentioned earlier. This question is indeterminate when the economy is viewed as a whole. The immigration of young, able-bodied persons whose claims regarding wages and working conditions are often at a low level can, of course, often be regarded as beneficial from the narrow standpoint of the individual company. Overall, the age structure of the population becomes more favourable and many of the structural problems become less difficult.

However, a population trend involving large-scale immigration over a long period produces problems in the community which we in Sweden lack tradition and experience in handling.

In the sphere of labour, immigrants compete with Swedes, not usually on equal terms. The immigrants can stand in the way of work being given to indigenous, under-employed groups such as women, elderly people and the handicapped. On the other hand, and this is the wider problem, large immigrant groups can be discriminated against in favour of Swedish labour and be given the worst, lowest-paid jobs. This formation of a menial, lower class of foreigners would be a serious social problem and would conflict with the welfare principles on which population policy should be based.

There are many different aspects to the social problems associated with immigration. Just as population policy concerning fertility must be related to social policy and family policy, population policy with regard to immigration must be related to social policy and *minority policy*. The debate on the problems connected with increased immigration has long been conducted as if assimilation or cultural pluralism were alternatives to action; but assimilation policy in the sense of a more compulsory adaptation of immigrants to Swedish life is no longer realistic, and with continued large-scale immigration it will become even less so. It has become obvious that a policy which leads to situations where children cannot communicate with their parents, or young people are forced into contact with the community without any real language of their own, is an impossible one. We are therefore moving towards a more pluralistic society; but such a society can assume vastly different forms, depending among other thing on the action of the majority population; the alternatives range from a more strictly segregated, pluralistic community with immigrants and Swedes separate from each other to a more open community that offers opportunities for immigrants to participate on an equal footing in the economic and social life of the host community. Which of these types of community we shall get in Sweden

will depend upon the future trend of public opinion and political measures relating to immigration and its associated problems. Not least, educational policy has an important rôle to fulfil, partly through the way in which it is organized for the minority groups and partly through the conception and knowledge of the immigrants' situation imparted in the schools. The rôle of the school for population policy concerning ethnic minorities can be compared with the rôle played by the school with respect to the birth rate through sex instruction.

It should be clear from the discussion above that immigration policy must have a long-range perspective. The tendency to look upon immigration only in relation to short-term economic fluctuations is a very dangerous one and can lead to serious problems in the future. Without a long-time perspective political actions can be inconsistent. One must be aware of the fact that mistakes today, for example, concerning education of immigrant children are very difficult to correct at a later stage in their lives. They remain handicapped in relation to their Swedish fellows.

"It is important to eliminate conditions which in 10–15 years can lead to segregated society containing a disadvantaged underclass of immigrants. We have today tens of thousands of uneducated, often illiterate, lonely and unhappy potential candidates for such an underclass."[16]

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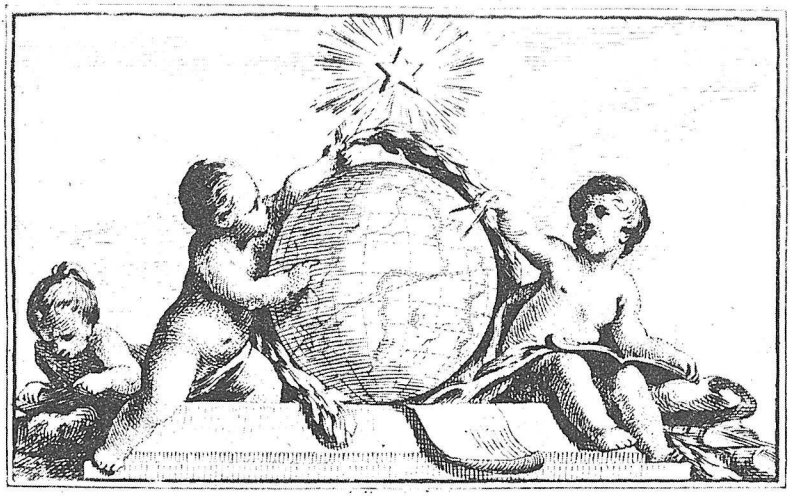


10 The Neo-Fertility

Picture of Age F

The Picture of Age F completes the earlier, post-industrial pictures. Sudden changes in the birth rate occur, due chiefly to changes in family planning; but changes in values and economic changes due to international crises, for example, also play a part. Changed social and economic conditions, in the forms of abortion and tax legislation, for example, have sudden, short-term effects upon fertility. Frequent fluctuations in the annual number of births create problems for social planning with regard to child care, education, housing and the labour market. Methods of smoothing out the annual variations need to be found. New forms of work organization, which allow for re-education and generally more flexible entry and re-entry into employment, provide scope for this.

10.1 Some Demographic Assumptions

It will probably have been seen from earlier chapters that fertility is the component of demographic change that shows the widest variation and hence constitutes the greatest element of uncertainty in forecasts of the course of population development. Historical experience shows that quite large fluctuations around the general fertility trend can suddenly

occur under certain conditions. The conditions for, and consequences of, such fluctuations will be discussed in some details in this Picture of Age F, which must be regarded as a complement to the earlier Pictures dealing with the stationary population. Some aspects of a changed fertility pattern relating to the long and short term consequences of the ability to determine a child's sex and the spacing of children has already been discussed in Chapter 8.

The demographic assumptions, which are the starting point here, coincide wherever appropriate with corresponding assumptions in Picture D. We thus assume that the mortality rate is stabilized at the most recently observed level, i.e. a life expectancy at bith of 72 years for males and 77 years for females. We also assume initially that no international migration takes place, or that it is on such a small scale that it affects neither the growth rate nor the age structure of the population.

With regard to fertility, it is assumed that no lasting changes take place in childbearing. The average fertility level is constant. 'Neo-Fertility' is not understood as a basic upward or downward trend in bith rates but rather as random shifts in family planning practice between different times and/or different population groups. These shifts are expressed demographically as peaks (and troughs) in the birth rate curve.

The birth rate trend shown in Figure 10.1 is the starting point for the analysis presented in this Picture of the Age. The first peak after five years, which is deliberately made very strong in order to emphasize the effects, is accompanied after 25 years by a new fluctuation, and so on every 25 years. The fluctuations become gradually weaker and weaker; but they are still fully observable after 100 years. The general downward trend does not change during this development, however. Similar wave-like movements are also to be found in the population total. The total population after 100 years differs quite considerably due to this fluctuation in the birth rate (7.35 as against 7.80 million). The same tendency is also to be found in individual, larger age groups (Figure 10.2), despite the fact that fertility is the same in both cases. The total populations gradually converge; but this takes much longer than the 100 years covered by this analysis. The concentration of childbearing within a relatively short period thus creates a growth potential, which causes the population to grow much faster over a very long period than would be the case if fertility had been constant. Thus, the initial effects of the wave remain for a long time, and this also results in the stabilization of the age structure being much slower, so that, even after 100 years, it is far from constant.

The shifts in the number of children and teenagers are likewise large, as can be seen from Figure 10.3. If we confine ourselves to the age groups

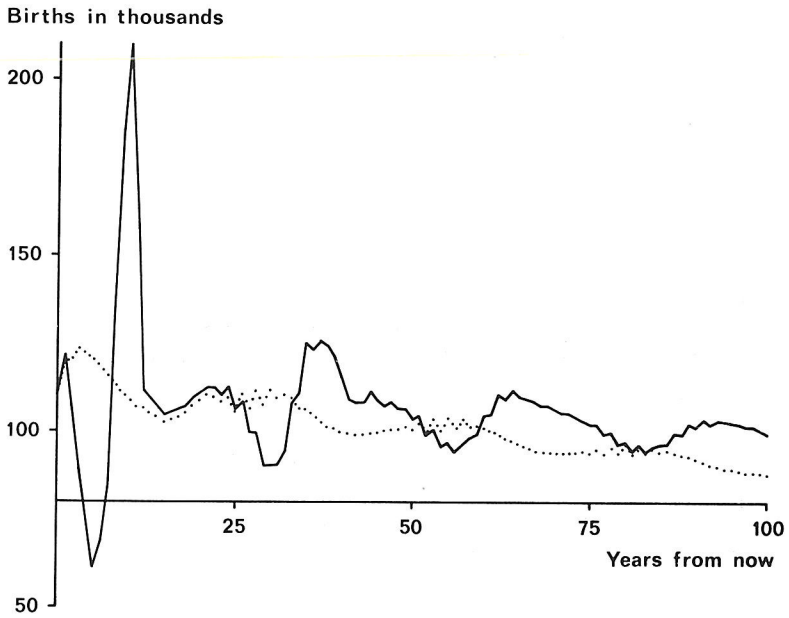


Fig. 10.1 Total number of births 100 years ahead
..... constant period fertility
—— fluction in the period fertility
The calculations are in both cases based on a constant general cohort fertility rate of 1.97. The period fertility rate varies in the second case from a low of 0.88 five years after the start of the projection period to a high of 3.27 ten years after the start. After 15 years the fertility is assumed to have stabilised at its original level of 1.97. Additional assumptions are: Pattern of cohabitation according to the proportion of married women in 1965, the following distribution of women according to desired number of children:

No. of children	1	2	3	4
Percentage distribution	10	50	30	10

Women are bearing children at the exact ages 22, 24, 26, 30, 33, 36 and 39 years and, finally, 10 per cent of the couples are psyciologically sterile.

given in the graph (0–6, 7–15 and 16–24 years), we can say that the effects of the variations in birth rates are dampened most notably after about 50 years.

10.2 Conditions for Changed Fertility

As shown in earlier Pictures, the secular decline in fertility has meant a fall in the number of children from 8–9 per family to an average of two,

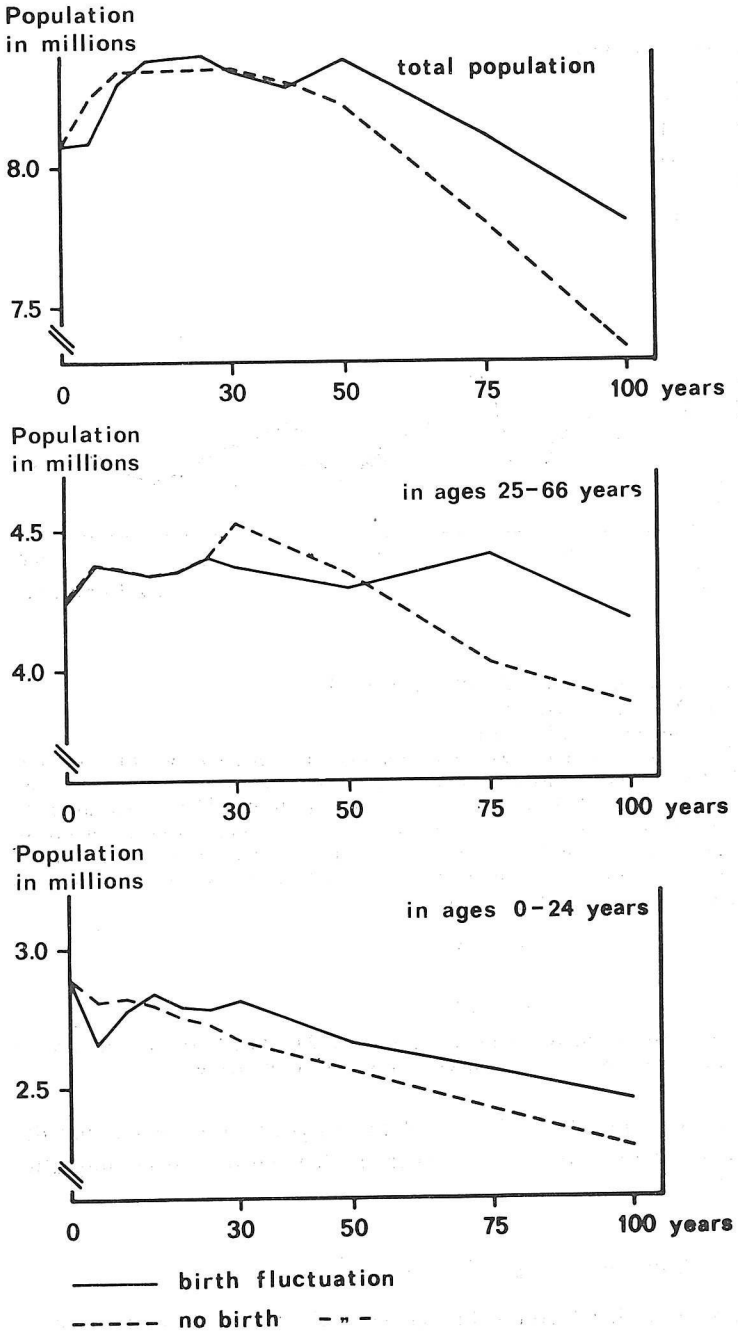


Fig. 10.2 Total population in the ages 0–24 and 25–66 100 years ahead.

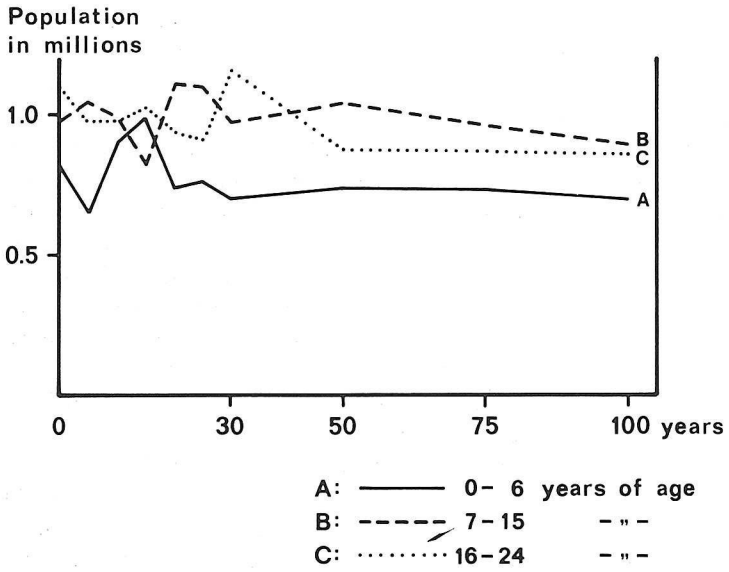


Fig. 10.3 Population in the ages 0–6, 7–15 and 16–24 100 years ahead.

or slightly more. One must not be misled into believing that fertility was entirely uncontrolled during earlier epochs of our demographic history. Never has the biological maximum number of children been born during the period we can overview. The conditions of fertility that prevailed during these periods were always regulated by social conventions and laws, as well as by various taboos. For Sweden, the low marriage rate helped to keep down the overall birth rate. If, instead, one studies marital fertility only, one arrives at a level high by international standards and well in excess of, for example, the level in India today.

The low fertility which, as in Picture D, represents the average trend here, helps to increase the relative importance of changes in family planning practice (see example 3, p. 132). The situation in the 1940's may be repeated, in the sense that external political and economic uncertainties can defer potential parenthood. A new emotional climate can influence family planning practice. Similar effects can arise when sizeable groups alter the timing of their higher education, gainful employment and period at home. Presumably, such changes in the conditions of life brought about by, for example, tax legislation, are met with rational consideration of whether to have children earlier or later. Relatively minor changes in conditions can probably produce significant demographic

effects. Experience in other countries shows too, that changes in abortion legislation can result in sudden shifts in the birth rate.

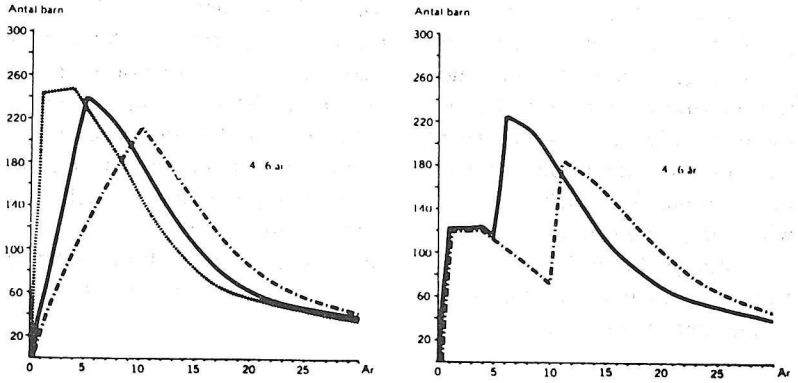
International events, such as wars and natural disasters, can be expected to have a marked influence upon decisions concerning child-bearing, directly through 'psychological' influence and, indirectly, as a result of changes in economic conditions and expectations for the future. The adoption of foreign children is on only a small scale at the moment[1] and hampered by severe restrictions, not least from the donor countries. It is conceivable that sudden, international disasters, could create conditions for a rapid increase in the number of foreign children adopted in Sweden. Such an addition does not necessarily affect the age groups that have their own children; the foster parents probably belong to a rather older age group. The result is the same as with a peak in the birth rate, and a demographic wave is initiated.

The possibility of increased fertility differentiation between various population groups should also be mentioned in this connection. In addition to the more fashion-influenced changes in the number of children in certain sectors of the population that have occurred in the past and can occur again in the future, there is the possibility of differences between women in relation to their career opportunities. Women who cannot realize their aspirations through gainful employment possibly bear children as a compensation. New forms of cohabitation, in which traditional pairings do not feature, can increase the scope for such differentiation, with some groups of women 'specializing' in child-bearing while others regard gainful employment as their principal function.

10.3 Implications and Welfare Problems

The consequences of the trend outlined above depend greatly upon the time-perspective applied. The immediate effect of an increase in the number of births is a rapidly growing demand for services needed by the younger age groups. The requirements from education and the labour market gradually become more demanding, albeit temporarily. Although we are dealing here with a sphere which should be easy to forecast, experience shows that lack of foresight leads to complications which could be avoidable. It is an important precondition of all forms of planning and decision-making that it should be based on *continual observation of demographic changes.*

An example of this type of population trend is given by the growth that is observed in new residential areas. Owing to the advantages of large-scale operation, building is concentrated in time and so completion and moving-in are also concentrated. This gives the age structure of the



– – – – 1 000 dwelling units/year 0
——— 200 dwelling units/year year 0–4
–.–.– 100 dwelling units/year year 0–9

——— 500 dwelling units year 0, 500 dwelling
–.–.– units year 5
500 dwelling units year 0, 500 dwelling units year 10

Fig. 10.4 Estimated number of children in the age-group 4–6 years in a newly built residential area with 1 000 dwelling units at different rates of expansion.[2]

population taking up residence a very distinctive character, that is generally 'young' and with a high birth rate. This generates a wave of births which subsequently has effects throughout the population. The large number of children, and the ensuing decline as a result of a rapid fall in the number of births, causes very irregular burdens on the local social institutions. A more uniform age structure is desirable. One way to achieve this is to develop new residential areas gradually and, in this way, control migration. It is not possible, at present, to calculate the costs to the community of gradual urban development of this kind, one reason being that the social advantages and drawbacks of different development patterns are not known. The possibilities of achieving a more uniform age structure by means of gradual development can be illustrated by the calculation in Figure 10.4.

Solutions of this kind are not available, of course, when it is a question of managing fluctuations in the birth rate for the nation as a whole and of adjusting new age groups to advanced studies, compulsory military service and, not least, entry into working life. The large number of children born in the 1940's was not 'anticipated' by the educational system of the 1960's. The difficulties that these fluctuations undoubtedly cause for individuals and for the community make it necessary to study the possibility of avoiding social measures which can be expected to cause waves of births. It should also be possible to aim for greater flexibility in the matching of various age groups to different activities.

With flexibility in the organization of working schedules, it should be possible to increase the scope for such smooth adjustment to temporary birth bulges. Adult further education can be a means of smoothing out the demand on educational institutions and, at the same time, reducing the difficulties facing new age-groups when they are to commence active working life. The problems associated with demographic fluctuations can be accentuated by lack of accord between the type of labour sought and what the young people seeking work expect from the jobs.

Although the problems may show up only in a distant future relative to the demographic causes, they are serious and should be given attention a long time in advance.

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11 Outlooks and Insights

In this final chapter we first present a short retrospect of Swedish population policy in order to tie together the earlier more selective observations. Secondly, we discuss a number of general problems related to population policy illustrations of which can be drawn from Swedish experience.

11.1 Population and Policy – What Happened?

11.1.1 From Mercantilism to Free Movement across National Boundaries

During the 18th century the debate on population policy was dominated by the mercantilist view that a large population was an asset to a country. The population was regarded as a major resource, as labour for the country's production or as a source of men for the armed services. The military significance of the population is illustrated by the fact that the results of population censuses were long kept secret. There are contemporary records of statements saying categorically that it would be just as irresponsible to reveal the size of the population of the country as it would be to reveal the number of guns and quantity of other military materiel.

The small population and the supposed large-scale migration to neighbouring countries were regarded as a direct threat to the economic development of the country. A number of restrictive laws were introduced to make emigration difficult. Although it was not easy to apply them, they were undoubtedly an important factor in checking emigration up until the time they were finally abolished in 1860. Instead, immigration was encouraged but it never grew to a substantial scale. It consisted chiefly of ironworkers and industrial workers, a few hundred of whom immigrated annually from areas in Germany, as did also tradesmen and manufacturers.

From about 1750 onwards, internal population growth was encouraged. The rulings in force up to this point against clearing land and establishing new holdings were annulled. Then the population grew. It is, of course difficult to judge how much of the growth that is attributable to policy and how much would have come about even if political circumstances had been otherwise. But apart from this quantitative aspect, it is clear that the land and labour-market policies pursued during

the following century turned a large part of the additional rural population into a poor and vulnerable proletariat.

The growing tension between the growth of population and the re-organization of the economy towards market-oriented agriculture and manufacturing industry was not resolved in Sweden until after well over a million individuals had emigrated. This happened after the new liberal views had come to accept free movements across national boundaries. A striking feature of the emigration period is that the movement of people out of the country did not arouse political concern until about 1900. From that time on attempts were made by means of various kinds of propaganda to keep people within the country. The "homestead" movement started, its foremost purpose being to help farm and factory workers to purchase a house and a piece of land of their own and thus counteract emigration.

The free exchange of people with other countries continued for the entire period from 1860 to World War I. Foreigners required neither a passport, residence or work permit. The freedom of trans-border movement in Europe made possible large-scale seasonal migration for work, as well as permanent emigration.

11.1.2 Neo-Malthusianism and the Emigration Question

At the end of the 19th century the birth rate had begun to fall. Deliberate birth control was propagated by the neo-Malthusian movement as one of the best ways to avoid hardship and poverty. Many people took offence at this propaganda and, in 1910, the law on contraceptives ('preventivlagen') was introduced prohibiting the sale of contraceptives and making all advertising and imparting of information on them punishable offences. Both moral objections and, not least, fears of a decline in population lay behind the law. It was in force for nearly 30 years until it was annulled in 1938, but its effects seem to have been very limited. The law was not firmly rooted in the people's sense of justice. It was often considered to be a "class" law by which the poorer classes were to be kept in ignorance of birth control.

Neo-Malthusianism was also criticized on other grounds. It was called social quackery, designed to conceal the defects in the organization of society.

11.1.3 Immigration Policy and the Labour Market

When the reaction against emigration finally came, emigration was already falling and a certain amount of re-immigration had started. From

then on, migration policy came to focus on questions of immigration. A strong opposition to immigration developed among trade unions and labour groups, which felt themselves threatened by foreigners getting work in Sweden. In 1907, the Swedish parliament requested statutory provisions to prevent what was considered to be "harmful immigration". A deportation law enabled action to be taken against particular categories of foreigners: vagrants, ex-convicts, those suspected of being national security risks, etc. A compulsory passport system was introduced in 1917 with the aim of controlling the influx of foreigners. The next year another decree was announced linking immigration policy with labour market policy. Here for the first time, the principle was introduced, that visas should be granted for foreign labour only on the recommendation of the trade union organization concerned.

After the war there again came a period of liberalization of movements between countries, but the universally high unemployment following the war necessitated a re-appraisal of immigration policy around the world.

The principal reasons given for legislation in Sweden were related to the labour market. Other considerations were also cited: the housing situation, order and security and racial considerations. The latter aspects gained increasing importance. The laws on immigration were applied more and more strictly when the trend of political events in Europe during the 1930's built up the pressure of refugees towards Sweden's borders. Only when the war brought streams of refugees into the country were legislation and the application of the laws eased.

11.1.4 Population Policy as Family Policy

The low birth rate during the 1930's gave rise to fears that the population of Sweden would decline. In this demographic situation, Alva and Gunnar Myrdal published their book "Kris i befolkningsfrågan" (Crisis in the Population Issue) in 1934. It attracted great attention by its proposal that social and family policy should be used as a means both of transferring income to needy groups and of stimulating a rise in fertility. It should not be necessary for unwanted children to be born. Parenthood should be a matter of choice.

As a direct consequence of the proposals, a national commission on population was appointed in 1935. The results of its work can be summed up as a "maternity policy" which led, among other things, to the expansion of health services for mothers and infants.

Some years later a second commission on population policy was set up. By and large, this further developed the work done by the earlier commission. Through government action, the population issue became

transformed into one of general social policy and thus gradually came to form the basis for a new approach, with a deeper concern for the care of home and family. During the 1940's, parliament passed resolutions on, for example, questions of abortion, mortgages for newly-married couples, school meals and child allowances.

11.1.5 Population Policy as Labour Market Policy

Labour market policy before and during World War II came to deal partly with gainfully employed women. There was a clear connection here with population policy and its aim that women should have more children. During the serious unemployment at the beginning of the 1930's, women were not particularly welcome on the labour market. There was particular opposition to married women "who had got a man to provide for them". The argument, in terms of population policy, was that gainfully employed women were less fertile than those who stayed at home. With the growing economic boom the opposition weakened. Then, during the war more labour was needed, chiefly casual labour. The answer lay in providing part-time work, primarily for married women, and in establishing more day nurseries and kindergartens.

The requirements of labour market policy also left their mark to a great extent upon immigration policy during and after World War II. The flood of refugees during the war helped to fill the gaps on the Swedish labour market.

Movement across national borders was facilitated by the abolition of work permits for Scandinavian citizens as early as 1943. The compulsory passport system between Scandinavian countries was abandoned in 1954.

The greatly increased immigration during the 1960's brought criticism from the trade unions, and other quarters, to the effect that companies paying low wages could satisfy their manpower requirements by importing labour. In 1967 the work-permit requirement was introduced. The tighter regulations resulted in a small drop in the number of foreigners seeking work. A couple of years later an Immigrants' Board was established to deal with the right of foreigners to stay and work in Sweden and with applications for Swedish citizenship.

11.1.6 Regional Policy

The debate on population policy in recent years has been dominated by regional development questions. As early as the 1930's the general public was aware of the problems connected with the depopulation of rural areas. Only then was it affirmed that the "flight from the land" could not

be turned, the best that could be done was to try to soften its effects. Social policy should eliminate the differences in living standards between rural and urban populations, but realities such as disparities in the tax basis showed that the intentions of the policy to reduce social inequality were difficult to fulfil. Instead, much more comprehensive political measures would be needed to deal with the problems created by the geographical redistribution of activities and people.

A first step towards counteracting the local imbalance between growing urban settlements and declining rural areas was a radical municipal redivision of the country, its purpose being to secure cooperation between urban centres and their immediate hinterlands. This would strengthen the ability of the local authorities to deal with their social and educational problems as well as with physical planning.

Structural changes in the economy gradually caused regional imbalances of a larger scale throughout the country. The fast growth of the metropolitan areas, in particular the Stockholm region, was followed by some pressure problems. The depopulation of the nothernmost counties was accompanied by insecurity of employment and difficulties in retaining social and commercial services.

From the start when problems related to regional development were treated one by one, a more comprehensive approach had emerged by the beginning of the 1970's. From then on regional policy covers the whole country. The first steps have been taken to formulate a national strategy for the development of the settlement pattern as an entire interacting system. The goal is to create stable and diversified local labour markets, to make services equally accessible throughout the country and to create good working and living environments.

11.2 Population and Policy – What is the Lesson?

What is of general relevance in the Swedish experience over the centuries? Can some conclusions be drawn which are independent of the special circumstances defined by time, place and society? The answer largely depends on how far one is willing to go in terms of abstraction from the data. At the most elementary level, one can look for mere crude similarities between aggregated trends observed at various times in Sweden and presently in other countries. Beyond this, it is possible to venture into a more speculative sphere and try to get some insight into the mechanisms a Government has to consider if it wants to pursue a population policy. We are going to try both approaches in turn.

11.2.1 Are International Parallels Useful?

First of all, it is clear that nost direct parallels between stages in Swedish development and today's situation in countries with a fast-growing population are of limited relevance. Swedish population policy has never been anti-natalistic. It has at times been pro-natalistic. The fact that fertility has gone down is not the result of direct political efforts to curb growth. The only period when overcrowding developed into a serious problem was at about the middle of the 19th century. The problem was 'solved' by large-scale emigration – a solution which is hardly of any practical interest today.

Pro-natalistic political measures have been put into practice at a number of occasions. Althought it is probably somewhat easier to influence the birth rate in a positive than in a negative direction, it is far from easy to estimate the outcome of the policies with any degree of precision. It seems as if the land policy pursued from about 1750 and onwards gave more people a chance to marry than would otherwise have been the case. But the consequences of the pro-natalistic measures of the 30's are more indeterminate. The birth rate had in fact begun to rise to some extent already earlier and this tendency was a reflection of an international trend.

From an ethnic point of view the Swedish population has been extraordinarily homogeneous. We have only limited experience of handling complicated ethnic and demographic diversity. We have still much to learn as, for example, spokesmen for the Lapps and for recent immigrants frequently point out.

Further – and not least important – the steady rise of prosperity in Sweden has probably, more than any population policy, been a decisive factor behind demographic changes and the transition into what now seems to developing into a state of stable population.

These negative comparisons should be supplemented with at least one of a positive nature. We believe that the area of regional development and regional policy is of mutual interest to almost all countries in the world. The future geographical distribution of population within countries should be a fundamental issue in population policies. The limitations of natural resources and considerations related to social welfare demand that policy-makers should be concerned about the location and size of settlements. Although the processes of urbanization and regional development are not completely understood as yet, Swedish experience in this field seems to be relevant as an area of direct comparison and study for other countries.

11.2.2 What Creates the Problems?

On the more abstract and speculative level, Swedish experience demonstrates first of all some of the various ways in which the population issue is related to the general development of a society, in particular to the division of activity, the distribution of political resources (cf 1.4) and the values guiding policy-making.

The division of activity between the members of a society has a structure which is determined by the many intricate connections between power, technology, institutional arrangements and habits of thought. It is partly planned, but partly the summary outcome of a myriad of more or less wideranging and disconnected decisions over time. Sometimes the structure becomes very rigid, at other times it undergoes rapid change.

The population has a size and internal structure in terms of distribution of age, health and competence, of kinship ties and geographic location. These characteristics of a population change through time.

Since there is no guarantee that the two entities, the set of activities and the set of people, change their structure in a correlated way, tensions sometimes develop into major political problems. At certain times the political situation sparks off forces behind the existing activity system, forces which require that certain parts of the population should adjust. At other times population development generates demands concerning the redivision of activities. The course of development depends on who define the perspective and in particular their values and powers.

Swedish policy in the 18th century aimed at encouraging population growth was rooted in the idea that the size of a population should be adjusted to the needs of the economy as defined by a very small élite. Also, the long-standing indifference to emigration in the 19th century illustrates – but in the reverse – that it was supposed that the population would adjust.

Although the value-background is quite different, there are some rather striking similarities in certain developments during recent decades. Immigration is the first case in point. Immigration is a way of arranging a quick population growth. The regulation of immigration has largely been a matter of meeting labour market requirements. The objective of assisting people in difficulty has been a side-issue. Thus the adjustment of the size and structure of population to activities stands out as the leading theme.

Secondly, the geographical redistribution of population within the country has primarily followed the emerging locational requirements of industrial and service activities. Clearly, in this case there is a mixed

variety of causes. There have undoubtedly also been marked new preferences behind some of the migrational streams, in particular among younger individuals. But on the whole, economic policy has taken it almost for granted that the population should accept a high degree of both occupational and geographical mobility in the interest of the structural changes which were deemed to be of over-riding importance. Again, the adjustment of population to activities dominates the picture.

The population policy of the 1930's on the other hand, with its strong emphasis on redistribution and social welfare, is different in the sense that the starting point was needs found among certain disadvantaged groups in the population. Social policy has followed this line ever since and there are many adjustments – albeit minor ones – made in the activity system because of demands emanating from the structure of the population. The policy of full employment provides an example of this way of looking at things. The regional policy which has taken shape in recent years puts equal stress on efforts to adjust the development of activities to the development of the population. Thus there has been a marked trend through time towards a broader perspective on the relation between activity and population. Social considerations seem to be winning ground.

In the forward-looking pictures presented in Chapters 8–10 we have assumed that it will be the composition and the welfare requirements of the population that will define coming changes in the division of activities. A situation of that kind by no means excludes conflicts between diverging interests. However, the dividing lines will not always go between different social groups. They may also, more than before, be drawn between different spheres of life, for example, between employment and family involvement, and thus frequently cut through the activities of an individual person. It must for example be assumed that widespread employment among women will contribute to hold down fertility. This is again a case where the division of activities will influence the population in terms of size and age-distribution. But here it is, in a manner if speaking, the unborn who have to adjust and therefore also, in the long run, all those who have to take the consequences of the new kind of composition of the population.

The above discussion shows how essential it is in all matters related to population policy to consider in whose interest measures are taken. The position stated in the introduction "that a quantitative population policy is defendable only inasmuch as it furthers general welfare goals" will be severely put to the test every time a tension develops between the vested interests behind the structure of activities and the structure of the population.

11.2.3 How to Reach the Population Variables?

The material presented in the earlier chapters also provides a base for judging how far and in what ways the different population variables (mortality, fertility, migration and mobility) seem to be accessible to political action. When reviewing these matters it is useful to try to go back to the nature of the 'elementary events' (cf Chapter 1) and think about how individuals and families handle them in their dialogue with the surrounding conditions.

Mortality holds a unique position among the population variables. This elementary event is the least accessible of all to human choice. Death is a biological fact which neither the individual person nor his society has the power to postpone case by case, at least not to a degree that is of any demographical interest. Mortality as an aggregated statistical phenomenon, on the other hand, can be made to change through human intervention at least up to a limit. It is worth noting that the prolongation of life expectancy seems to be a highly valued goal throughout mankind, something which suggests that here is a policy area where wide agreement could be attainable.

Consequently, as to mortality the assessment of Swedish society has been clear for the period which we can overview. There has been a constant ambition to improve health and to lower mortality. Considerations of private wellfare as well as humanitarian thinking have been the dominating motives behind the efforts made, although population growth occasionally has appeared as an explicit argument, especially during the 18th century.

So far nobody has tried to evaluate more precisely how much the lowering of mortality owes to medical progress and the organization of health care and how much of it is a consequence of the generel development of society in terms of advances in education and material well-being. Yet, it seems most likely that the medical contribution chiefly belongs to the later decades, perhaps from the 30's and onwards. One should however mention compulsory vaccination, introduced in the early 19th century, and the spread of the use of antiseptics in the later part of the same century. Nevertheless, it is clear that other factors of a more general nature have had a very great impact, initially probably the greatest effect. After all, the lowering of mortality started for certain groups soon after 1800 and was quite widespread by 1850 at least if we view the figures at the national level. Behind this process must primarily lie a gradual transformation of individual resources and environmental conditions penetrating many facets of life. This of course was a fortunate order of events compared to a medically induced survival followed by

distressing circumstances. The gain was not just survival but survival under gradually improved conditions. It must be admitted that there are many questions as to social differentiation still to be answered.

For the development of a philosophy of population policy it seems to be an important task to seek a deeper understanding of health and mortality as a function of how a society is organized as a whole and not just with respect to its medical efficiency. Differentials still found today are closely tied to differences in life styles and living conditions. Further, as developed in Chapter 8, we seem to approach once again a stage where medical progress will have limited impact upon mortality compared to the change of the whole socio-ecological complex. In certain age-groups accidents are already the major cause of death. One could also say that at a deeper level the cause lies in the degree of risks the urban-industrial society has as so far been willing to accept. It may well be the case that more slowly working risk factors are also going to make a growing impact, for example, stresses associated with urban organization and the exposure of human tissue to chemicals. So, during litte more than a century we have moved from one situation to another, both of which are in many respects similar: the mortality pattern should in both cases be understood as an integrated part of the social system.

Fertility is to a very large extent at least a matter on which couples make a choice. A policy aimed at influencing fertility has to take this circumstances into account. One can do various things to the social environment which makes it more or less attractive to have children, but one cannot expect automatic responses as in the case of mortality. What happens depends on how individuals and couples subjectively understand and evaluate their specific situations within the total fabric of relationships. And, one may add, it should be their right to solve their problems on the basis of their unique perspectives. If there emerges a collective interest to directly influence fertility, the only really acceptable way of doing so – and probably the only one that will work – is to try to make people understand the consequences of their actions, not only for themselves but also for their society.

We would like to suggest that there exists a very fundamental – and politically very essential – relationship between the development through time of *mortality* and *fertility*. It is probably no accident of history that the downward trend of mortality precedes the downward trend of fertility. First of all – as was underlined above – the changing level of mortality in the days before the emergence of an effective medical science can be seen as a summary indicator of improving living conditions among the groups concerned. The same improvement should have led many couples into situations where they considered the size of a family

in a new light. One may also venture to see a still more direct connection of a psychological nature between the personal experience of deaths and births. As soon as people begin to see clearly through direct social observation that an improvement in the chance of survival is taking place, the way lies open for new attitudes to reproduction. Viewed in this light fertility becomes a dependent variable of mortality.

Migration and *mobility* are the two variables which are entirely dependent upon individual decisions. They are also different in the sense that events are reversible. This does not mean that individual decisions are independent of what is happening in the environment. Quite the reverse, the volumes and directions of migration streams can to a very high degree be influenced by locational arrangements of activities and by information concerning opportunities. Our historical Pictures show such domestic cases as the colonization of the North, at least partly steered by the growth of the urban network, which was predominantly an outcome of market forces within the frame set by the railroads – and finally today's regional policy – which again tries to steer activities to chosen places and thus guide future migration.

It should be underlined that it is possible to pursue a policy of population distribution without directly interfering with the moves of individual persons. All too frequently one meets the interpretation that figures of net migration also show action taken by individual migrants. They do not. We learn from the detailed Swedish data on individual moves through time that net figures only reveal the surface of an intricate pattern of action taken by a great number of people. Even underlying and entirely stable geographical distribution of population in terms of numbers of inhabitants one can find very different degrees of individual mobility. All that happens is that opposite streams level out.

Because of the scarcity of information on the matter, individual mobility is frequently overlooked as a population variable. Yet it is in many respects of great importance both as a positive and a negative factor in the development of a society. A certain degree of mobility is a prerequisite for innovation and change. From a general point of view, mobility helps to counteract the risks of inbreeding. On the other hand, mobility above a certain level is bound to have detrimental effects on social coherence and local self-government. However, as yet little is known about these relationshops.

As a general conclusion of this review of the population variables, it is important to underline that they all appear to be closely interwoven with the way a society is structured and changing as a whole. They remain at a 'depth' which make them rather inaccessible to narrow and sectorial policies. For Sweden it is probably true to say that it has been policies

not explicitly defined as population policies which have had the greatest impact on the population variables. But even this impact was just part of the broad stream of general development.

List of Background Reports

Andersson, Åke, Bergendahl, P.A., Ohlsson, Olle: Den ekonomiska utvecklingen och dess samband med råvaruanvändningen. (The economic development and its relation to raw-material utilization).

Ankarloo, Bengt: Den demografiska transitionen i Sverige. (The demographic transition in Sweden).

Dahlberg, Åke, Holmlund Bertil: Några samhällsekonomiska aspekter på befolkningsutveckling och migration. (Some socio-economic aspects of population development and migration).

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Hatje, Ann Katrin: Svenska befolkningspolitiska erfarenheter i historiskt perspektiv. (Swedish experience of population policy in a historical perspective).

Johansson, Henning: Samerna i den svenska befolkningsutvecklingen. (The Lapps in Swedish population development).

Lindström, Ulla: Kvinnlig barnplanering i Sverige. (Female child-planning in Sweden).

Odén, Birgitta: Individuella tidshorisonter. (Individual time horizons).

Olsson, Kent: Levnadsstandarden i Sverige 1850–1950 enligt komponentmetoden. (The standard of living in Sweden 1850–1950 according to the component method).

Rundblad, Bengt: Invandrarproblem. (Immigrant problems).

Samuelsson, Kurt: Värderingar i svensk välfärdspolitik ur Koblik: Från fattigdom till överflöd. (Evaluations in Swedish welfare policy, from Koblik: From poverty to affluence). Wahlström & Widstrand, Stockholm 1973.

Tibblin, Gösta: Sjukdomarna och deras förebyggande. (Diseases and their prevention).

Tables

Table A.1 Population changes 1751–1970

Years	Mean population	Marriages	Live births	Deaths	Emi-grants	Immi-grants	Infant deaths <1 year
1751/1760	1 862 347	16 743	66 421	50 731	..	..	13 590
1761/1770	1 982 355	16 881	67 733	54 656	..	..	14 634
1771/1780	2 042 296	17 335	67 426	58 961	..	..	13 607
1781/1790	2 158 900	17 022	68 981	60 279	..	..	13 791
1791/1800	2 282 896	19 513	76 033	57 877	..	..	14 908
1801/1810	2 400 349	19 839	74 083	67 767	..	..	14 718
1811/1820	2 477 506	21 620	82 531	63 904	..	..	15 133
1821/1830	2 752 330	22 897	95 326	65 037	..	..	15 945
1831/1840	3 013 722	21 506	94 836	68 656	..	..	15 822
1841/1850	3 306 269	24 042	102 833	68 061	..	..	15 749
1851/1860	3 642 321	27 714	119 419	79 005	1 690	..	17 440
1861/1870	4 079 233	26 695	128 107	82 233	12 245	..	17 800
1871/1880	4 386 953	29 866	133 730	80 140	15 027	..	17 365
1881/1890	4 673 225	29 264	135 820	79 160	37 640	4 760	15 010
1891/1900	4 931 944	29 276	133 873	80 693	24 677	7 881	13 604
1901/1910	5 310 120	31 846	136 841	79 053	25 767	8 442	11 569
1911/1920	5 712 967	35 761	126 294	81 649	11 837	7 555	8 753
1921/1930	6 044 818	39 234	105 840	72 938	12 865	6 220	6 227
1931/1940	6 250 790	51 497	90 328	72 946	2 576	6 462	4 141
1941/1950	6 688 203	60 446	123 419	69 768	6 172	19 572	3 386
1951/1960	7 285 643	52 132	107 050	70 567	15 036	25 630	1 938
1961/1965	7 616 224	55 649	114 032	76 332	15 394	33 915	1 684
1966/1970	7 919 753	52 318	115 115	80 815	22 377	50 952	1 413
Per thousand of mean population							
1751/1760		8.99	35.67	27.24	..	..	204.6[a]
1761/1770		8.52	34.17	27.57	..	..	216.1
1771/1780		8.49	33.01	28.87	..	..	201.8
1781/1790		7.88	31.95	27.92	..	..	199.9
1791/1800		8.55	33.31	25.35	..	..	196.1
1801/1810		8.27	30.86	28.23	..	..	198.7
1811/1820		8.73	33.31	25.79	..	..	183.4
1821/1830		8.32	34.63	23.63	..	..	167.3
1831/1840		7.14	31.47	22.78	..	..	166.8
1841/1850		7.27	31.10	20.59	..	..	153.2
1851/1860		7.61	32.79	21.69	0.46	..	146.0
1861/1870		6.54	31.40	20.16	3.00	..	138.9
1871/1880		6.81	30.48	18.27	3.43	..	129.9

Years	Mean population	Marriages	Live births	Deaths	Emi-grants	Immi-grants	Infant deaths <1 year
1881/1890		6.26	29.06	16.94	8.05	1.02	110.5
1891/1900		5.94	27.14	16.36	5.00	1.60	101.6
1901/1910		6.00	25.77	14.89	4.85	1.59	84.5
1911/1920		6.26	22.11	14.29	2.07	1.32	69.3
1921/1930		6.49	17.51	12.07	2.13	1.03	58.8
1931/1940		8.24	14.45	11.67	0.41	1.03	45.8
1941/1950		9.04	18.45	10.43	0.92	2.93	27.4
1951/1960		7.16	14.69	9.69	2.06	3.52	18.1
1961/1965		7.31	14.97	10.02	2.02	4.45	14.8
1966/1970		6.61	14.54	10.20	2.83	6.43	12.3

[a] Per thousand live births.

Source: Statistisk Årsbok 1972. (Statistical yearbook).

Table A.2 Population growth in five-year periods 1750–1970. Per thousand.

Period	Actual increase	Natural increase (birth surplus)	Intrinsic rate of natural increase
1750/1755	10.3	10.8	7.9
1755/1760	5.3	6.1	5.7
1760/1765	5.3	5.6	4.5
1765/1770	6.5	7.5	5.4
1770/1775	−2.2	−1.6	−2.1
1775/1780	9.4	9.8	5.7
1780/1785	3.0	4.0	0.4
1785/1790	3.5	4.1	2.6
1790/1795	8.4	8.8	6.6
1795/1800	5.7	7.1	6.1
1800/1805	6.3	7.0	6.4
1805/1810	−2.1	−1.6	0.6
1810/1815	6.7	5.9	4.5
1815/1820	9.5	9.1	7.5
1820/1825	13.9	13.8	12.5
1825/1830	8.2	8.4	10.3
1830/1835	9.3	9.3	10.7
1835/1840	7.4	8.1	9.3
1840/1845	11.0	11.1	10.7
1845/1850	9.8	10.0	8.7
1850/1855	8.9	10.2	8.1
1855/1860	11.7	12.0	8.7
1860/1865	12.8	13.4	10.8
1865/1870	2.6	9.1	8.4
1870/1875	10.0	12.4	11.4
1875/1880	8.2	12.1	10.8
1880/1885	5.1	11.8	10.9
1885/1890	4.3	12.4	11.8
1890/1895	5.5	10.8	10.9
1895/1900	8.6	10.7	11.3
1900/1905	6.1	10.6	11.0
1905/1910	8.4	11.1	11.4
1910/1915	6.8	9.1	8.0
1915/1920	6.6	6.6	3.3
1920/1925	5.0	7.1	1.8
1925/1930	2.9	3.8	−4.8
1930/1935	3.5	2.5	−9.5
1935/1940	3.8	3.1	−7.8
1940/1945	9.3	8.1	1.5
1945/1950	10.7	7.9	4.2
1950/1955	6.9	5.5	1.3
1955/1960	5.6	4.5	1.6
1960/1965	7.0	5.0	
1965/1970	7.6	4.3	

Source: Holmberg, I. (1970): Mortality, fertility and reproductivity. An outline of Swedish population development during 200 years. Mimeographed. Göteborg.

Table A.3 Percentage distribution of population in broad age groups every tenth year 1750–1970.

	Males			Females			Both sexes		
Year	0–14	15–64	65–w	0–14	15–64	65–w	0–14	15–64	65–w
1750	35.2	59.7	5.1	31.5	61.4	7.1	33.2	60.6	6.2
1760	35.9	59.3	4.8	32.7	60.5	6.8	34.3	59.9	5.8
1770	34.3	61.1	4.6	31.6	62.2	6.2	32.9	61.7	5.4
1780	32.9	62.7	4.4	30.6	63.6	5.8	31.7	63.2	5.1
1790	33.4	61.7	4.9	30.6	63.2	6.2	31.9	62.5	5.6
1800	33.7	61.4	4.9	31.1	62.5	6.4	32.4	61.9	5.7
1810	33.1	62.4	4.5	30.2	64.1	5.7	31.6	63.3	5.1
1820	33.7	61.6	4.7	31.0	62.9	6.1	32.3	62.3	5.4
1830	36.9	58.6	4.5	34.1	59.8	6.1	35.5	59.2	5.3
1840	34.9	61.2	3.9	32.4	62.0	5.6	33.6	61.6	4.8
1850	34.1	62.0	3.9	31.8	62.5	5.7	32.9	62.3	4.8
1860	34.7	60.9	4.4	32.4	61.6	6.0	33.5	61.3	5.2
1870	35.4	59.9	4.7	32.8	61.1	6.1	34.1	60.5	5.4
1880	34.0	60.9	5.1	31.3	62.1	6.6	32.6	61.5	5.9
1890	34.8	58.2	7.0	31.9	59.8	8.3	33.3	59.0	7.7
1900	33.8	58.6	7.6	31.2	59.7	9.1	32.4	59.2	8.4
1910	33.0	59.4	7.6	30.5	60.3	9.2	31.7	59.9	8.4
1920	30.4	62.0	7.6	28.2	62.6	9.2	29.3	62.3	8.4
1930	25.7	65.9	8.4	24.0	66.0	10.0	24.8	66.0	9.2
1940	21.0	70.3	8.7	19.9	70.0	10.1	20.4	70.2	9.4
1950	24.0	66.4	9.6	22.8	66.3	10.9	23.4	66.3	10.3
1960	22.8	66.3	10.9	21.6	65.6	12.8	22.2	66.0	11.8
1970	21.4	66.3	12.3	20.2	64.5	15.3	20.8	65.4	13.8

Source: Holmberg, I. (1970): Mortality, fertility and reproductivity. An outline of Swedish population development during 200 years. Mimeographed. Göteborg.

Table A.4 Natural increase and net migration in towns and rural districts 1816–1970. Per thousand of mean population

Period	Rural districts			Towns		
	Natural increase	Net-migration	Total growth	Natural increase	Net-migration	Total growth
1816/40	11.08	– 1.45	9.63	– 3.49	12.62	9.13
1841/50	11.59	– 1.67	9.92	0.56	14.16	14.72
1851/60	12.24	– 3.21	9.03	1.34	20.29	21.63
1861/70	11.86	– 6.18	5.68	6.78	14.49	21.27
1871/80	12.89	– 6.35	6.54	8.08	16.32	24.40
1881/90	12.29	–12.03	0.26	11.33	14.89	26.22
1891/1900	11.05	– 7.32	3.73	9.70	10.96	20.66
1901/10	10.85	– 7.85	3.00	10.98	10.46	21.44
1911/20	8.09	– 7.33	0.76	7.08	15.27	22.35
1921/30	6.29	– 6.65	–0.36	3.55	9.55	13.50
1931/40	3.14	– 6.95	–3.81	2.10	15.68	17.78
1941/50	6.58	–12.45	–5.87	10.00	21.76	31,76
1951/60	3.66	– 7.22	–3.56	6.39	16.25	16.31

Source: Historisk Statistik. I. Befolkning. (Historical Statistics. I. Population).

Table A.5 Population by main groups of industry 1850–1970.

Year	Population in thousands					
	Agriculture forestry, hunting and fishing	Manufacture and handicraft	Commerce and communications	General service	Total population	Agric. pop. in per cent
1850	2 714	319	68	382	3 483	77.9
1870	3 017	610	217	325	4 169	72.4
1880	3 102	793	334	337	4 566	67.9
1890	2 973	1 038	414	360	4 785	62.1
1900	2 828	1 426	535	347	5 136	55.1
1910	2 697	1 766	741	318	5 522	48.8
1920	2 596	2 066	898	344	5 904	44.0
1930	2 417	2 195	1 117	413	6 142	39.4
1940	2 175	2 432	1 245	519	6 371	34.1
1950	1 647	2 884	1 518	992	7 042	23.4
1960[a]	924	2 910	1 214	1 010	6 058	15.3
1970[b]	276	1 374	906	856	3 413	8.1

[a] Formerly active and 'no occupation stated' not included.
[b] Only economically active population.
Source: Population censuses 1850–1970.

Table A.6 Percentage distribution of population in county regions.

Year	County region								Total population (in thousands)
	A, B	C, D, E, T, U	F, G, H, I	K, L, M	N, O, P, R	S, W, X	Y, Z	AC, BD	
1750	8.0	23.1	15.9	12.9	20.9	14.1	3.1	2.0	1 781
60	8.6	22.8	16.6	12.8	19.6	14.3	3.1	2.2	1 925
72	8.4	22.6	16.5	13.3	19.3	14.4	3.3	2.2	2 032
95	7.4	22.1	15.7	13.6	20.3	14.5	3.4	3.0	2 281
1800	7.3	22.0	15.5	13.7	20.3	14.5	3.6	3.0	2 347
10	6.8	21.9	15.8	14.4	20.1	14.2	3.9	2.8	2 396
20	6.7	20.9	15.6	15.1	20.6	14.0	4.0	3.0	2 585
30	6.4	20.2	15.6	15.1	21.0	14.2	4.2	3.2	2 888
40	6.2	19.9	15.9	15.4	21.0	14.1	4.2	3.3	3 139
1850	6.0	19.1	15.7	15.8	21.2	14.2	4.4	3.6	3 483
60	6.1	18.5	15.4	15.8	21.4	14.2	4.6	3.9	3 860
70	6.4	18.6	15.0	15.9	21.2	14.0	4.9	4.0	4 169
80	6.9	18.3	14.6	15.7	20.7	14.0	5.5	4.3	4 565
90	8.3	18.0	13.4	15.3	20.0	13.7	6.4	4.8	4 785
1900	9.2	17.8	12.5	15.1	19.4	13.8	6.7	5.4	5 136
, 10	10.4	17.4	11.9	15.1	19.2	13.5	6.7	5.8	5 522
20	11.2	17.3	11.4	14.8	18.9	13.4	6.8	6.2	5 904
30	12.5	16.6	11.0	14.7	18.9	13.0	6.7	6.6	6 142
40	13.8	16.4	10.7	14.5	18.9	12.4	6.5	6.8	6 371
1950	15.6	16.6	10.3	14.0	18.9	11.8	6.1	6.7	7 042
60	16.9	16.6	9.8	13.7	18.9	11.6	5.7	6.7	7 498
70	18.3	17.2	9.5	14.1	19.4	10.6	4.9	6.0	8 081

Source: Historisk Statistik. I. Befolkning –1950 (Historidal Statistics. I. Population)
(Vital Statistics)
Befolkningsrörelsen 1950–1960 (Population Changes)
Folkmängdens förändringar 1961–1966 (Population Changes)
Befolkningsförändringar Del. 3 1967–1970 (Population Changes. Part 3).

The Illustrations in the report are taken from the following sources:
Chapter 3 and 10, Transactions of the Royal Academy of Scienees 1790 and 1750.
Chapter 4, 8 and 9, Lekkamraten (The Playfellow) Stockholm, 1889.
Chapter 5, Illustrerad Familjejournal (The Illustrated Family Journal) 1879.

Figures

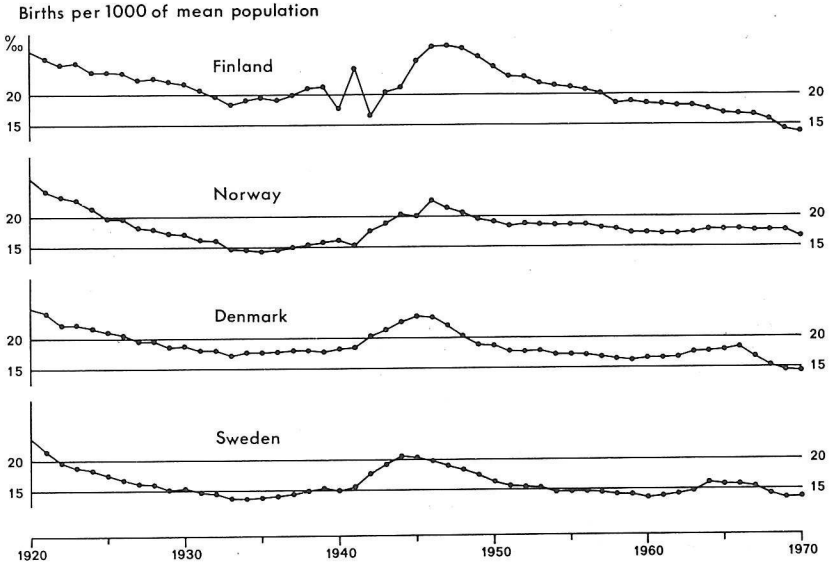


Fig. A.2 Births per thousand of mean population in the Nordic countries 1920–1970.

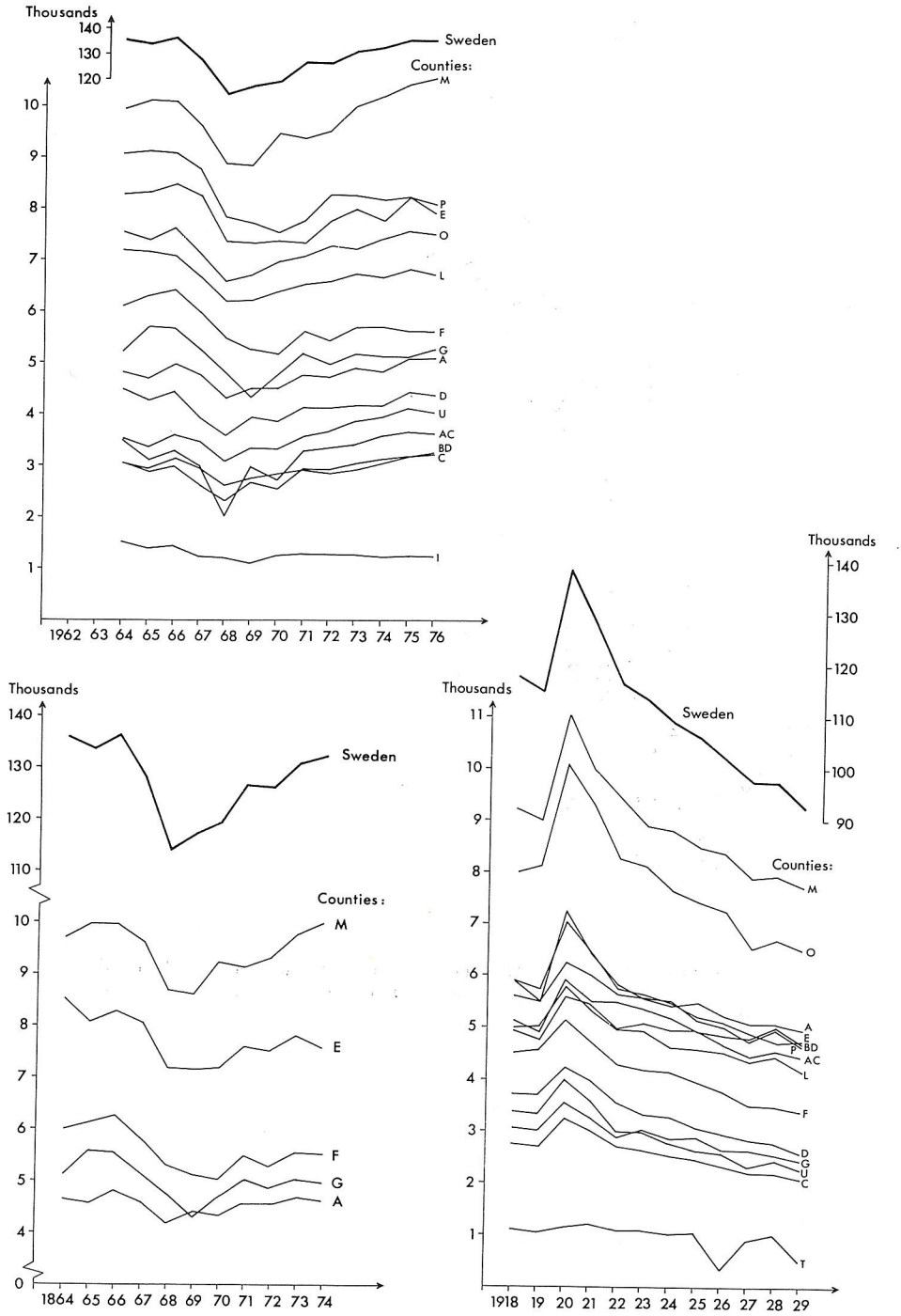


Fig. A.3 Number of births in some selected counties and time periods.

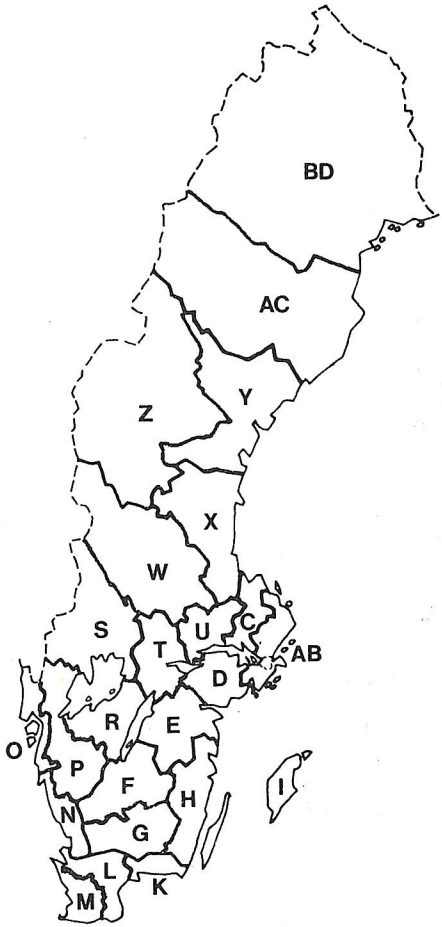


Fig. A.4 Boundries of the counties in Sweden. Norrland corresponds to the counties Y, Z, AC and BD. Lapland is the northern and western part of the BD-county.

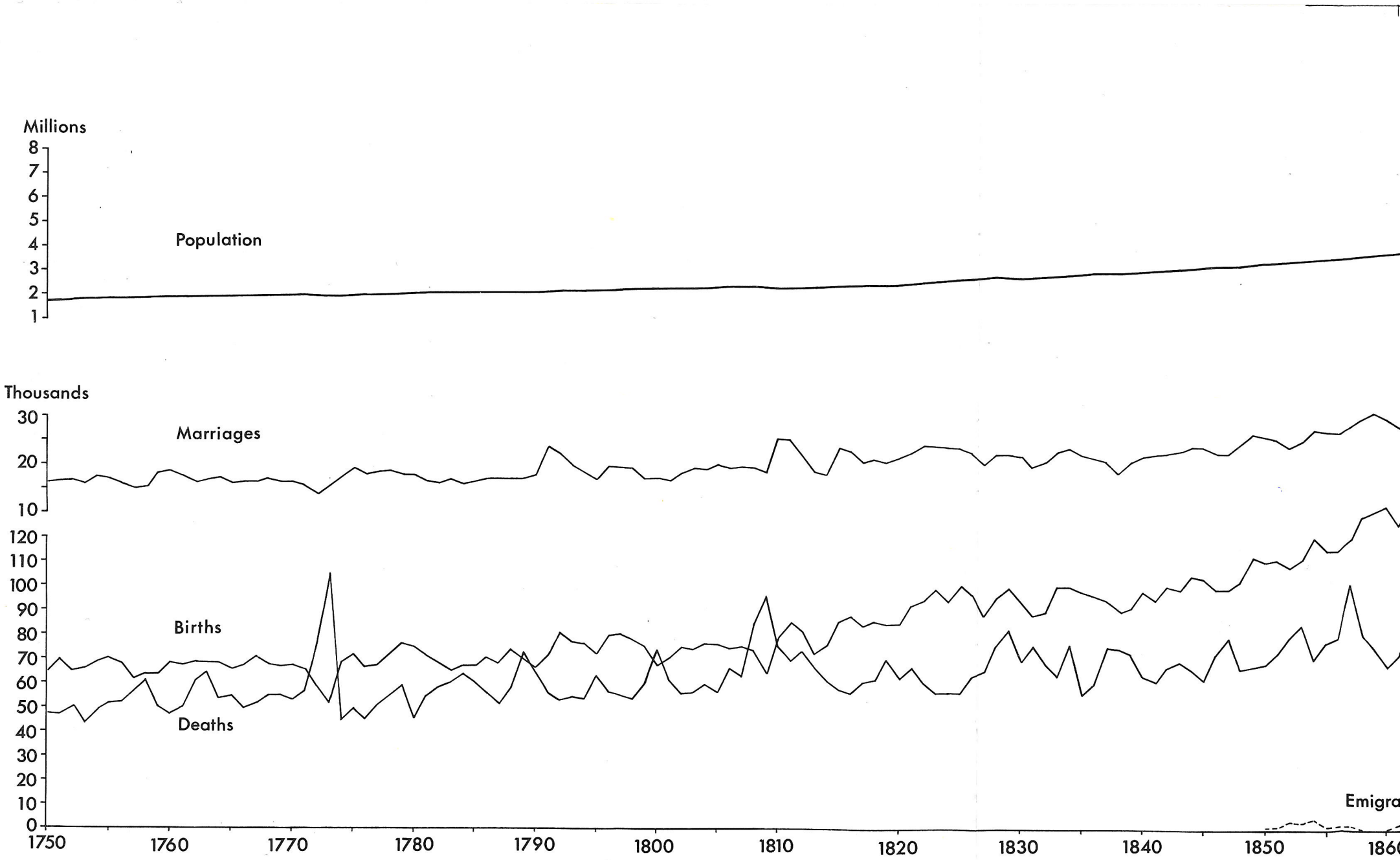
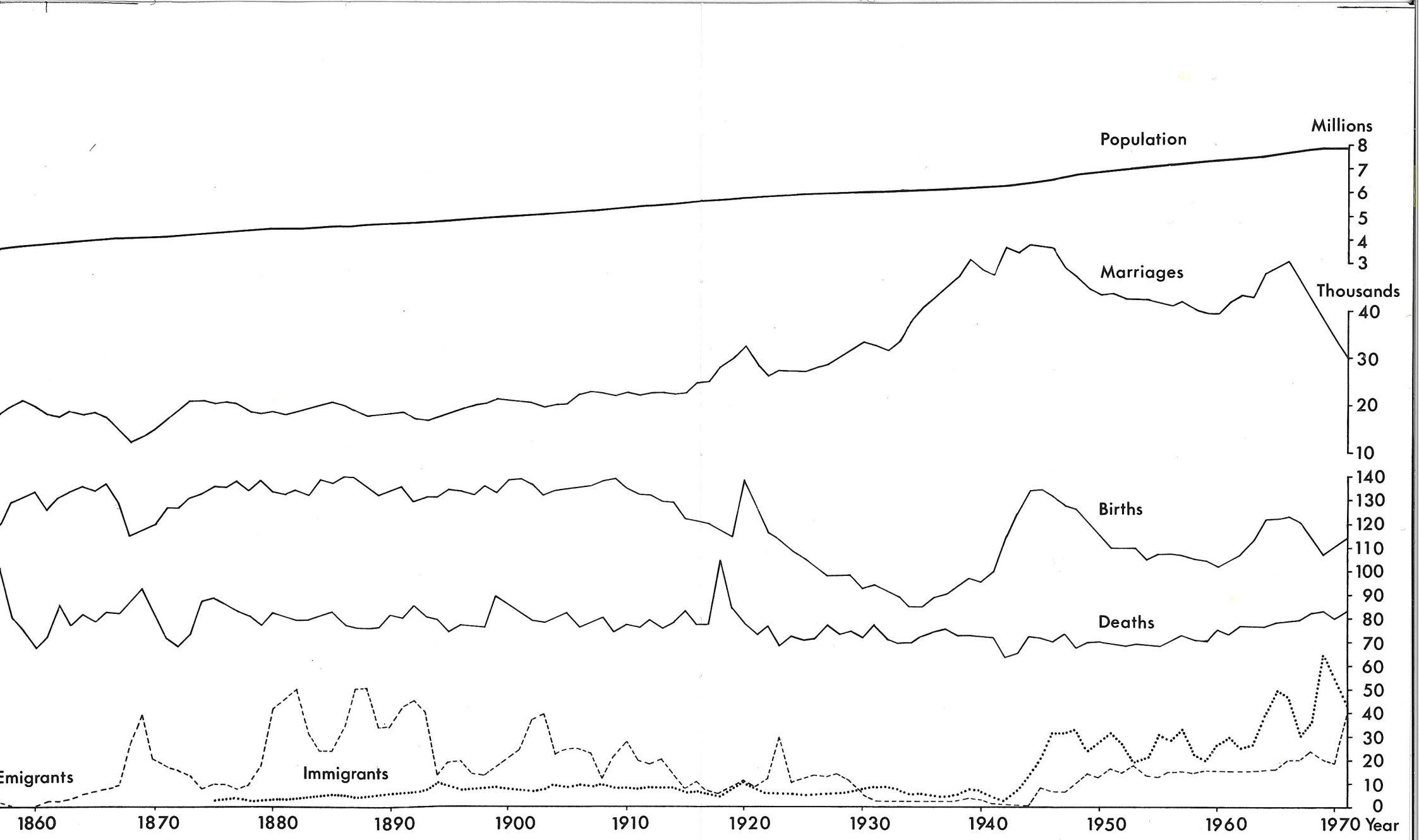


Fig. A.1 Population development in Sweden during 220 years.
Total population, marriages, births, deaths, emigrants and immigrants in absolute numbers each year 1750 to 1970.


Population
Millions
8
7
6
5
4
3
Marriages
Thousands
40
30
20
10
Births
140
130
120
110
100
90
80
Deaths
70
60
50
40
30
20
10
0
Emigrants
Immigrants
1860
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960
1970
Year

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